

June 2008

INFLUENZA PANDEMIC

Federal Agencies Should Continue to Assist States to Address Gaps in Pandemic Planning





Highlights of [GAO-08-539](#), a report to congressional requesters

Why GAO Did This Study

The *Implementation Plan for the National Strategy for Pandemic Influenza* states that in an influenza pandemic, the primary response will come from states and localities. To assist them with pandemic planning and exercising, Congress has provided \$600 million to states and certain localities. The Department of Homeland Security (DHS) established five federal influenza pandemic regions to work with states to coordinate planning and response efforts.

GAO was asked to (1) describe how selected states and localities are planning for an influenza pandemic and who they involved, (2) describe the extent to which selected states and localities conducted exercises to test their influenza pandemic planning and incorporated lessons learned as a result, and (3) identify how the federal government can facilitate or help improve state and local efforts to plan and exercise for an influenza pandemic. GAO conducted site visits to five states and 10 localities.

What GAO Recommends

GAO recommends that the Secretaries of Health and Human Services and Homeland Security, in coordination with other federal agencies, convene additional meetings of the states in the five federal influenza pandemic regions to help them address identified gaps in their planning. HHS generally concurred with the recommendation and DHS concurred.

To view the full product, including the scope and methodology, click on [GAO-08-539](#). For more information, contact Bernice Steinhardt at (202) 512-6543 or steinhardtb@gao.gov.

INFLUENZA PANDEMIC

Federal Agencies Should Continue to Assist States to Address Gaps in Pandemic Planning

What GAO Found

All of the five states and 10 localities reviewed by GAO had developed influenza pandemic plans. In fact, according to officials at the Centers for Disease Control and Prevention (CDC), which administers the federal pandemic funds, all 50 states have developed an influenza pandemic plan, in accordance with federal pandemic funding requirements. At the time of GAO's site visits, officials from the selected states and localities reviewed said that they involved the federal government, other state and local agencies, tribal nations, and nonprofit and private sector organizations in their influenza pandemic planning. Since GAO's site visits, the Department of Health and Human Services (HHS) has provided feedback to the states, territories, and the District of Columbia (hereafter referred to as states) on whether their plans addressed 22 priority areas, such as policy process for school closure and communication. On average the department found that states' plans had "many major gaps" in 16 of the 22 priority areas. In March 2008, HHS, DHS, and other federal agencies issued guidance to states to help them update their pandemic plans, which are due by July 2008, in preparation for another HHS-led review.

According to CDC officials, all states and localities that received the federal pandemic funds have met the requirement to conduct an exercise to test their plans. Officials from all of the states and localities reviewed by GAO reported that they had incorporated lessons learned from influenza pandemic exercises into their influenza pandemic planning, such as buying additional medical equipment, providing training, and modifying influenza pandemic plans. For example, as a result of an exercise, officials at the Dallas County Department of Health and Human Services (Texas) reported that they developed an appendix to their influenza pandemic plan on school closures during a pandemic.

The federal government has provided influenza pandemic guidance on a variety of topics including an influenza pandemic planning checklist for states and localities and draft guidance on allocating an influenza pandemic vaccine. However, officials of the states and localities reviewed by GAO told GAO that they would welcome additional guidance from the federal government in a number of areas to help them to better plan and exercise for an influenza pandemic, in areas such as community containment (community-level interventions designed to reduce the transmission of a pandemic virus). Three of these areas were also identified as having "many major gaps" in states' plans nationally in the HHS-led review. In January 2008, HHS and DHS, in coordination with other federal agencies, hosted a series of meetings of states in the five federal influenza pandemic regions to discuss the draft guidance on updating their pandemic plans. Although a senior DHS official reported that there are no plans to conduct further workshops, additional regional meetings could provide a forum for state and federal officials to address gaps in states' planning identified by the HHS-led review and to maintain the momentum of states' pandemic preparedness through this next governmental transition.

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Abbreviations

ASPR	Office of the Assistant Secretary for Preparedness and Response
CDC	Centers for Disease Control and Prevention
DHS	Department of Homeland Security
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
HHS	Department of Health and Human Services
HSEEP	Homeland Security Exercise and Evaluation Program
LLIS	Lessons Learned Information Sharing System
MOU	Memorandum of Understanding
National Pandemic Implementation Plan	<i>Implementation Plan for the National Strategy for Pandemic Influenza</i>
National Pandemic Strategy	<i>National Strategy for Pandemic Influenza</i>
NIMS	National Incident Management System
NIPP	<i>National Infrastructure Protection Plan</i>
NRF	<i>National Response Framework</i>
PAHPA	Pandemic and All-Hazards Preparedness Act
PFO	Principal Federal Official
PHEP	Public Health Emergency Preparedness Program
SFO	Senior Federal Official
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act

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United States Government Accountability Office
Washington, DC 20548

June 19, 2008

Congressional Requesters

The Implementation Plan for the National Strategy for Pandemic Influenza (National Pandemic Implementation Plan) states that in the event of an influenza pandemic the distributed nature and sheer burden of disease across the nation would mean that the federal government's support to any particular community is likely to be limited, with the primary response to a pandemic coming from states and local communities. However, given the unique nature of an influenza pandemic, all sectors of society, including the federal government, states and local communities, the private sector, nonprofit organizations, tribal nations, individual citizens, and global partners will need to be involved in preparedness for and response to a pandemic.

An influenza pandemic is a real and significant threat facing the United States and the world. There is widespread agreement that it is not a question of if, but when, such an influenza pandemic will occur. Some of the issues associated with the preparation for and responses to an influenza pandemic are similar to those for any other type of disaster or hazard. However, a pandemic poses some unique challenges. During the peak weeks of an outbreak of a severe influenza pandemic in the United States, an estimated 40 percent of the United States workforce might not be at work due to illness, the need to care for family members who are sick, or fear of becoming infected. Moreover, an influenza pandemic is likely to occur in several waves, each lasting up to 6 to 8 weeks, with outbreaks occurring simultaneously across the country.

The National Strategy for Pandemic Influenza (National Pandemic Strategy), which was issued in November 2005 by the President and his Homeland Security Council, is intended to provide a high-level overview of the approach that the federal government will take to prepare for and respond to an influenza pandemic. The National Pandemic Implementation Plan, which was issued in May 2006 by the President and his Homeland Security Council, lays out the broad implementation requirements and responsibilities among the appropriate federal agencies and defines expectations of nonfederal entities for the National Pandemic Strategy. The National Pandemic Implementation Plan lays out the expectation that states and communities should have influenza pandemic preparedness plans and conduct pandemic exercises. Exercises are crucial in testing and

planning. Our work has shown the importance of ensuring that lessons learned from exercises are incorporated into planning to address any gaps or challenges identified.¹ To assist in planning and coordinating efforts to respond to an influenza pandemic, in December 2006, the Secretary of Homeland Security established five federal influenza pandemic regions across the United States to work with states to coordinate planning and response efforts. In addition, cooperative agreements and grants from the Department of Health and Human Services (HHS) and the Department of Homeland Security (DHS) provide funds that state and local governments can use to support planning and exercising for an influenza pandemic. During fiscal year 2006, Congress provided HHS \$600 million in supplemental funding for state and local influenza pandemic planning and exercising, which has been administered by the Centers for Disease Control and Prevention (CDC), the last portion is to be distributed in 2008. The federal government has communicated the importance of remaining vigilant and sustaining pandemic preparedness. Continuing and maintaining these efforts is particularly crucial now, given the upcoming federal governmental transition in January 2009.

This report responds to your request that we (1) describe how selected states and localities are planning for an influenza pandemic and how their efforts are involving the federal government, other state and local agencies, tribal nations, nonprofit organizations, and the private sector, (2) describe the extent to which selected states and localities have conducted exercises to test their influenza pandemic planning and incorporated lessons learned into their planning, and (3) identify how the federal government can facilitate or help improve state and local efforts to plan and exercise for an influenza pandemic.

To address these objectives, from June 2007 through September 2007, we conducted site visits to the five most populous states: California, Florida, Illinois, New York, and Texas. Recognizing that we would be limited in our ability to report on all states in detail, we selected these five states for a number of reasons, including that these states

- comprised over one-third of the United States population,

¹GAO, *Influenza Pandemic: Further Efforts Are Needed to Ensure Clearer Federal Leadership Roles and an Effective National Strategy*, [GAO-07-781](#) (Washington, D.C.: Aug. 14, 2007).

-
- received over one-third of the total funding from HHS and DHS that could be used for planning or exercising for an influenza pandemic,² and each state received the highest amount of total HHS and DHS funding that could be used for planning and exercising for an influenza pandemic respectively within each of the five regions established by DHS for influenza pandemic preparedness and emergency response, and
 - were likely entry points for individuals coming from another country given that the states bordered either Mexico or Canada or contained major ports, or both, and accounted for over one-third of the total number of passengers traveling within the United States, and over half of both inbound and outbound international air passenger traffic to and from the United States.

In each state, we interviewed officials responsible for health, emergency management, and homeland security. We also interviewed officials at 10 localities in these same states, which consisted of five urban areas and five rural counties. We interviewed officials responsible for health and emergency management at an urban area and a rural county in each of the five states. The urban areas included Los Angeles County (California), Miami (Florida), Chicago (Illinois), New York City (New York), and Dallas (Texas). These urban areas were selected based on having the highest population totals of all urban areas in the respective states and high levels of international airport passenger traffic. Three of these urban areas also received federal pandemic funds: Los Angeles County, Chicago, and New York City. The rural counties we selected—Stanislaus County (California), Taylor County (Florida), Peoria County (Illinois), Washington County (New York), and Angelina County (Texas)—were each nominated by state officials based on the following criteria: these counties had conducted some planning or exercising for an influenza pandemic and they were representative of challenges and needs that surrounding counties might also be facing. In total we interviewed officials with 34 different agencies. We also reviewed documentation from the selected state and local governments.

While the states and localities selected provided a broad perspective, we cannot generalize or extrapolate the information gleaned from the site visits to the nation. In addition, since the states that we selected were large, the most populous states, and likely entry points for people coming

²We discuss the various HHS and DHS funding that could be used for influenza pandemic planning and exercising later in the report.

into the United States, the information we collected may not be as relevant to smaller, less populated states that are not likely entry points for people coming into the United States.

We also interviewed HHS, CDC, and DHS officials about how they are working with states and localities in planning and exercising for an influenza pandemic and reviewed documentation that they provided, including information on the HHS-led review of states', five territories',³ and the District of Columbia's⁴ influenza pandemic plans and the guidance to assist them in updating their influenza plans for the next assessment of their plans. In January 2008, we observed two of five influenza pandemic regional workshops led by HHS and DHS, in coordination with other federal agencies. The purpose of the workshops was to obtain state leaders' input on guidance to assist their governments in updating their pandemic plans in preparation for a second HHS-led review of these plans. In addition, we interviewed officials from the National Governors Association, Association of State and Territorial Health Officials, National Association of County and City Health Officials, and the National Emergency Management Association who are working on issues related to state and local influenza pandemic activities. We also reviewed relevant literature and prior GAO work.

We conducted this performance audit from March 2007 to June 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Detailed information on our scope and methodology appears in appendix I. In addition, a list of related GAO products is included at the end of this report.

Results in Brief

All of the five states and 10 localities we reviewed, both urban and rural, had developed influenza pandemic plans. In addition, all 50 states have

³The five territories are American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the United States Virgin Islands.

⁴Hereafter, we will refer to these entities collectively as states for both the five influenza pandemic regional workshops and guidance documents to assist them in updating their pandemic plans.

developed an influenza pandemic plan in accordance with federal pandemic funding requirements according to CDC officials. At the time of our site visits, officials from three of the five states and two of the three localities that received direct federal pandemic funds reported conferring with HHS and CDC for technical assistance in planning for an influenza pandemic. Officials from the selected states and localities reviewed said that they involved other state and local agencies, tribal nations, and nonprofit and private sector organizations in their influenza pandemic planning in accordance with federal pandemic funding requirements. For example, state public health agencies in all the states reported assisting their local counterparts with their influenza pandemic plans. Since we visited these states and localities, HHS has provided feedback to the states on whether their plans addressed 22 priority areas, such as policy process for school closures and communication. On average, the department found that states had “many major gaps” in their influenza pandemic plans in 16 of the 22 priority areas. In March 2008, HHS, DHS, and other federal agencies issued guidance to states to help them to update their pandemic plans, which are due by July 2008.

According to CDC officials, all states and localities that received federal pandemic funds have met the requirement to conduct an exercise to test their influenza pandemic plans. These states and localities could have met this requirement by conducting a discussions-based exercise or an operations-based exercise, which is used to validate the plans, policies, agreements, and procedures assessed in discussions-based exercises. One state and two localities conducted at least one discussions-based and an operations-based exercise, one state and one locality conducted at least one operations-based exercise, and the remaining three states and seven localities conducted or participated in at least one discussions-based influenza pandemic exercise. Officials from all of the states and localities we reviewed reported that they had incorporated lessons learned from influenza pandemic exercises into their influenza pandemic planning, such as buying additional medical equipment, providing training, and modifying policies or influenza pandemic plans. For example, as a result of an exercise, officials at the Dallas County Department of Health and Human Services (Texas) reported that they developed an appendix to their influenza pandemic plan on school closures during a pandemic that included factors for schools to consider in deciding when to close schools and for how long.

The federal government has provided influenza pandemic information and guidance through Web sites and state and regional meetings on a variety of topics including an influenza pandemic planning checklist for states and

localities, draft guidance on allocating and targeting an influenza pandemic vaccine, and discussions-based exercises for influenza pandemic preparedness for local public health agencies. However, officials of the states and localities we reviewed told us that they would welcome additional guidance from the federal government in a number of areas to help them to better plan and exercise for an influenza pandemic. Three of these areas—including community containment, which is community-level interventions, such as closing schools, designed to reduce the transmission of a pandemic virus—were also identified as having “many major gaps” in states’ plans nationwide in the HHS-led review. In January 2008, HHS and DHS, in coordination with other federal agencies, hosted a series of meetings of states in the five federal influenza pandemic regions to discuss draft guidance on updating their pandemic plans. Although a senior DHS official in the Office of Health Affairs reported that there are no plans to conduct further regional state workshops on influenza pandemic, additional meetings could provide a forum for state and federal officials to address gaps in states’ planning identified by the HHS-led review. The meetings could also help maintain the momentum that has already been started by HHS and DHS to continue to work with the states on pandemic preparedness through this next federal government transition.

Although HHS completes distribution of the federal pandemic funds in 2008, the federal government can continue to provide support to states in other ways. To help maintain a continuity of focus on state pandemic planning efforts and to further assist states in their pandemic planning, we recommend that the Secretaries of Health and Human Services and Homeland Security, in coordination with other federal agencies, convene additional meetings of the states in the five federal influenza pandemic regions to help them address identified gaps in their planning.

We provided a draft of the report to the Secretaries of Health and Human Services and Homeland Security for their review and comment. HHS generally concurred with our recommendation in an e-mail. The department stated that although additional workshops would be impractical in the short-term in light of the ongoing update of the state pandemic plans, the workshops had been successful, and HHS was prepared to arrange for similar sessions in the future if states would find them useful. The department also provided us with technical comments, which we incorporated as appropriate. DHS generally agreed with the contents of the report and concurred with our recommendation. DHS’s comments are reprinted in appendix II. We also provided draft portions of the report to the state and local officials from the five states and 10

localities we reviewed to ensure technical accuracy. We received no comments from these states and localities.

Background

Federal Emergency Response Framework

In the event of a disaster, such as an influenza pandemic, states may request federal assistance to maintain essential services pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) of 1974.⁵ The Stafford Act primarily establishes the programs and processes for the federal government to provide disaster assistance to state and local governments and tribal nations, individuals, and qualified private nonprofit organizations. Federal assistance may include technical assistance, the provision of goods and services, and financial assistance. The Federal Emergency Management Agency (FEMA), which is part of DHS, is responsible for carrying out the functions and authorities of the Stafford Act. For Stafford Act incidents, upon the recommendation of the Secretary of Homeland Security and the FEMA Administrator, the President may appoint a Federal Coordinating Officer (FCO) to manage and coordinate federal resource support activities provided pursuant to the Stafford Act.

DHS has recently updated the *National Response Plan*, now called the *National Response Framework* (NRF).⁶ To assist in planning and coordinating efforts to respond to an influenza pandemic, in December 2006, the Secretary of Homeland Security predesignated a national Principal Federal Official (PFO) and FCO for influenza pandemic, and established five federal influenza pandemic regions each with a regional PFO and FCO. This structure was formalized in the NRF. The PFO facilitates federal support to establish incident management and assistance activities for prevention, preparedness, response, and recovery efforts while the FCO manages and coordinates federal resource support activities provided pursuant to the Stafford Act. The PFO is to provide a

⁵The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 is codified, as amended, at 42 U.S.C. § 5121-5207.

⁶Issued in January 2008 and effective in March 2008, the NRF is a guide to how the nation conducts all-hazards incident response. It focuses on how the federal government is organized to support communities and states in catastrophic incidents. The NRF builds upon the National Incident Management System, which provides a national template for managing incidents.

primary point of contact and situational awareness for the Secretary of Homeland Security. In addition, according to an official in HHS' Office of the Assistant Secretary for Preparedness and Response (ASPR), HHS has also predesignated a national Senior Federal Official (SFO) and a regional SFO for influenza pandemic in each of the five federal influenza pandemic regions who serve as ambassadors for public health to states, territories, and the District of Columbia, which aligns with the PFO and FCO structure. The federal influenza pandemic regions, each of which consists of two standard federal regions, are shown below.

Figure 1: Five Federal Influenza Pandemic Regions

Region	Standard federal regions	By state
A	1 + 2 (Boston/New York)	<ul style="list-style-type: none"> • Connecticut • Maine • Massachusetts • New Hampshire • New Jersey • New York • Puerto Rico • Rhode Island • Vermont • Virgin Islands
B	3 + 4 (Philadelphia/Atlanta)	<ul style="list-style-type: none"> • Alabama • Delaware • District of Columbia • Florida • Georgia • Kentucky • Maryland • Mississippi • North Carolina • Pennsylvania • South Carolina • Tennessee • Virginia • West Virginia
C	5 + 8 (Chicago/Denver)	<ul style="list-style-type: none"> • Colorado • Illinois • Indiana • Michigan • Minnesota • Montana • North Dakota • Ohio • South Dakota • Utah • Wisconsin • Wyoming
D	6 + 7 (Denton/Kansas City)	<ul style="list-style-type: none"> • Arkansas • Iowa • Kansas • Louisiana • Missouri • Nebraska • New Mexico • Oklahoma • Texas
E	9 + 10 (Oakland/Bothell)	<ul style="list-style-type: none"> • Alaska • Arizona • California • Hawaii • Idaho • Nevada • Oregon • Washington

Source: DHS.

In addition, under the Public Health Service Act, the Secretary of Health and Human Services has the authority to declare a public health

emergency and to take actions necessary to respond to that emergency consistent with his/her authorities.⁷ These actions may include making grants, entering into contracts, and conducting and supporting investigations into the cause, treatment, or prevention of the disease or disorder that caused the emergency. According to the National Pandemic Implementation Plan, as the lead agency responsible for public health and medical care, HHS would lead efforts during an influenza pandemic while DHS would be responsible for overall nonmedical support such as domestic incident management and federal coordination.

In December 2006, Congress passed the Pandemic and All-Hazards Preparedness Act (PAHPA)⁸ which codifies preparedness and response federal leadership roles and responsibilities for public health and medical emergencies by designating the Secretary of Health and Human Services as the lead federal official for public health and medical preparedness and response.⁹ The act also prescribes several new preparedness responsibilities for HHS. Among these, the Secretary must develop and disseminate criteria for an effective state plan for responding to an influenza pandemic. Additionally, the Secretary is required to develop and require the application of evidence-based benchmarks and objective standards that measure the levels of preparedness for public health emergencies in consultation with state, local, and tribal officials and private entities, as appropriate. Application of these benchmarks and standards is required of entities receiving funds under HHS public health emergency preparedness grant and cooperative agreement programs.¹⁰ Beginning in fiscal year 2009, the Secretary of Health and Human Services is to withhold certain amounts of funding under these grant and cooperative agreement programs where a state has failed to develop an influenza pandemic plan that is consistent with the criteria established by HHS or where an entity has failed to meet the benchmarks or standards established.¹¹

⁷See 42 U.S.C. § 247d.

⁸Pub. L. No. 109-417, 120 Stat. 2831, December 19, 2006.

⁹Section 101 of Pub. L. No. 109-417. See 42 U.S.C. § 300hh.

¹⁰See programs authorized under 42 U.S.C. § 247d-3a and § 247d-3b.

¹¹Section 201 and 305 of Pub. L. No. 109-417, amending 42 U.S.C. § 247d-3a and §247d-3b, respectively.

Various Federal Funds Are Available to States and Localities for Influenza Pandemic Planning and Exercising

In addition to the federal pandemic funds provided for states and localities by Congress in fiscal year 2006, HHS and DHS receive funds for public health and emergency management grant programs that can be used by states and localities to continue to support influenza pandemic efforts. In fiscal year 2006, Congress appropriated \$5.62 billion in supplemental funding to HHS for, among other things, (1) monitoring disease spread to support rapid response, (2) developing vaccines and vaccine production capacity, (3) stockpiling antivirals¹² and other countermeasures, (4) upgrading state and local capacity, and (5) upgrading laboratories and research at CDC.¹³

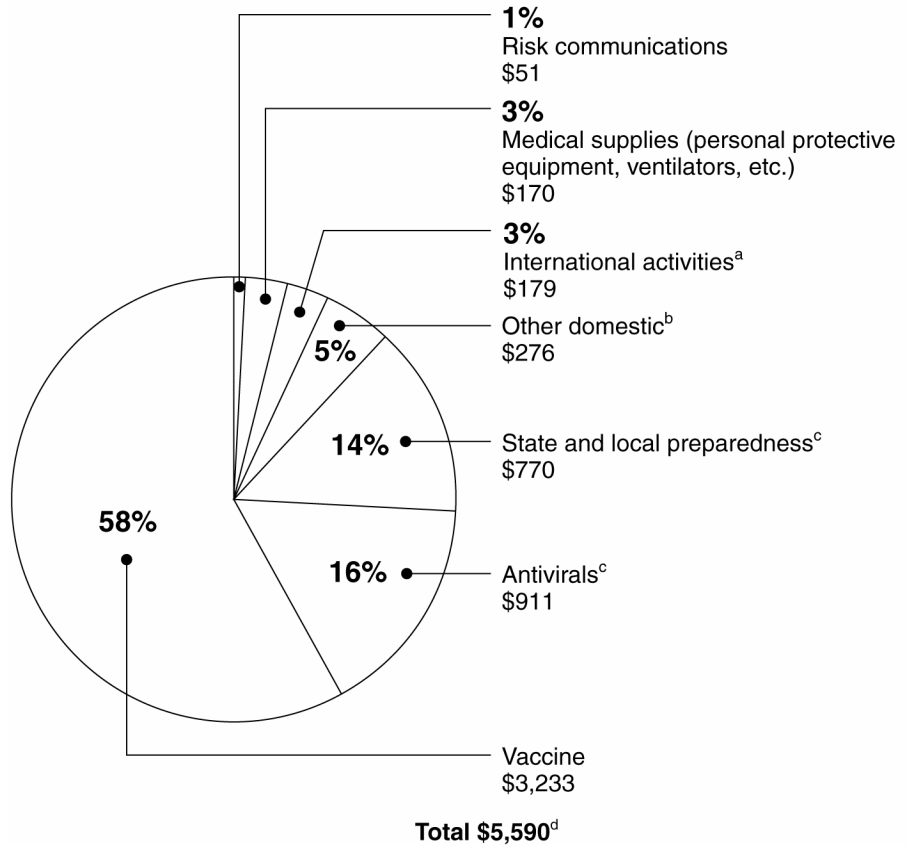
As shown in figure 2, a total of \$770 million, or about 14 percent, of this supplemental funding went to states and localities for preparedness activities. Of the \$770 million, \$600 million was specifically provided by Congress for state and local planning and exercising while the remaining \$170 million was allocated for state antiviral purchases. According to HHS, as of May 2008, states had purchased \$21.9 million of treatment courses of influenza antivirals for their state stockpiles. In addition to these state stockpiles of antivirals, HHS has also acquired antivirals that are in the HHS-managed Strategic National Stockpile, which is a national repository of medical supplies that is designed to supplement and resupply local public health agencies in the event of a public health emergency.

¹²Antivirals are drugs that are used to prevent or cure a disease caused by a virus, such as influenza, by interfering with the ability of the virus to multiply in number or spread from cell to cell.

¹³See Department of Defense Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, Pub. L. No. 109-148, 119 Stat. 2680, 2783, 2786 and Emergency Supplemental Appropriations Act for Defense, the Global War on Terror and Hurricane Recovery, 2006, Pub. L. No. 109-234, 120 Stat. 418, 479-80 (includes \$30 million to be transferred to the U.S. Agency for International Development).

Figure 2: HHS Influenza Pandemic Supplemental Appropriations, Fiscal Year 2006

Dollars in millions



Source: GAO, HHS.

Notes: Data are from HHS, Pandemic Planning Update III: A Report from Secretary Michael O. Leavitt (Washington, D.C.: Nov. 13, 2006).

^aInternational activities includes: international preparedness, surveillance, response, and research.

^bOther domestic includes: surveillance, quarantine, lab capacity, rapid tests.

^cState and local preparedness includes funding for state subsidies of antiviral drugs.

^dThis chart does not include \$30 million in supplemental funding that was transferred to the United States Agency for International Development.

In addition to the federal pandemic funds specifically provided by Congress, which are administered for HHS by CDC, HHS officials said that states and localities could use funds provided under two other HHS public

health emergency preparedness cooperative agreement programs to continue to support their influenza pandemic activities.¹⁴

- The Public Health Emergency Preparedness Program (PHEP), which is a cooperative agreement administered by CDC, is intended to improve state and local public health security capabilities. Specifically, the Cities Readiness Initiative, a component of PHEP, is intended to ensure that major cities and metropolitan areas are prepared to distribute medicine and medical supplies during a large-scale public health emergency.
- The Hospital Preparedness Program, which is administered by HHS ASPR, is intended to improve surge capacity and enhance community and hospital preparedness for public health emergencies.

DHS officials also said that states and localities could use funds provided under three of the Homeland Security Grant Program grants, which are administered by DHS's Office of Grants and Training, to continue to support influenza pandemic activities.

- The State Homeland Security Grant Program's purpose includes supporting, building, and sustaining capabilities at the state and local levels through planning, equipment, training, and exercise activities.
- The Metropolitan Medical Response System Program is intended to support an integrated, systematic mass casualty incident preparedness program that enables an effective response during the first crucial hours of an incident such as an epidemic outbreak, natural disaster, and a large-scale hazardous materials incident.
- The Urban Area Security Initiative Grant Program is intended to address the unique planning, equipment, training, and exercise needs of high-threat, high-density urban areas.

¹⁴According to 31 U.S.C. § 6304 and § 6305, unlike federal grants, where there is no substantial involvement between a federal agency and the recipient, cooperative agreements are used in cases where substantial involvement is expected between a federal agency and the recipient.

States and Localities Have Planned for an Influenza Pandemic and Have Involved Others in Their Planning, but HHS Has Found Major Gaps in States' Plans

All of the five states and 10 localities we reviewed, both urban and rural, had developed influenza pandemic plans. As directed by the federal pandemic funding guidance, all 50 states and localities that received direct funding through the PHEP and Hospital Preparedness Program were required to plan and exercise for an influenza pandemic. According to CDC officials, all 50 states have developed an influenza pandemic plan. Of the \$600 million designated by Congress for states and localities for planning and exercising, CDC divided the funding into three phases. Recipients included 50 states, five territories,¹⁵ three Freely Associated States of the Pacific,¹⁶ three localities,¹⁷ and the District of Columbia. CDC awarded \$100 million for Phase I in March 2006, \$250 million for Phase II in two disbursements—July 2006 and March 2008¹⁸—and \$250 million for Phase III in two disbursements—September 2007 and October 2007.¹⁹ Phase III is to be completed in 2008 and will be the final phase for dedicated federal pandemic funds to states and localities that received direct federal funding.

For Phase I, recipients were expected to comply with the following requirements, among others:

- establish a committee or consortium at the state and local levels with which the recipient is engaged that represents all relevant stakeholders in

¹⁵The five territories included Puerto Rico, the U.S. Virgin Islands, American Samoa, Northern Mariana Islands, and Guam.

¹⁶The three Freely Associated States of the Pacific included the Republic of the Marshall Islands, the Republic of Palau, and the Federated States of Micronesia.

¹⁷The three localities included Chicago, Los Angeles County, and New York City.

¹⁸Of the \$250 million awarded for Phase II, CDC awarded \$225 million in July 2006. States and localities could apply for \$24 million by March 2008 on a competitive basis to develop plans to develop, implement, and evaluate influenza pandemic interventions, and \$990,000 was awarded to the National Governors Association in September 2006 to conduct a series of influenza pandemic regional workshops for states in 2007 and 2008 to enhance intergovernmental and interstate coordination.

¹⁹Of the \$250 million awarded for Phase III, \$175 million was awarded to recipients. Recipients of the Hospital Preparedness Program cooperative agreement had the opportunity to apply for an additional \$75 million in October 2007. These Phase III funds were awarded to assist states and localities in upgrading their influenza pandemic preparedness capacities. For example, they will allow states and localities to establish stockpiles of critical medical equipment and supplies, support the planning and development of alternate care sites, and conduct medical surge exercises for an influenza pandemic.

the jurisdiction, such as public health, emergency response, business, community-based, and faith-based sectors;

- implement a planning framework for influenza pandemic preparedness and response activities to support public health and medical efforts;
- collaborate among public health and medical preparedness, influenza, infectious disease, and immunization programs and state and local emergency management to maximize the effect of funds and efforts;
- coordinate activities between state and local jurisdictions, tribes, and military installations; among local agencies; with hospitals and major health care facilities; and with adjacent states;
- conduct exercises to test the plans of states or localities that receive the funding directly and prepare an after-action report, which is a summary of lessons learned highlighting necessary corrective actions;
- assess gaps in pandemic preparedness using CDC's self-assessment tool to evaluate the jurisdiction's current state of preparedness;
- submit a proposed approach to filling the identified gaps; and
- provide an associated budget for the critical tasks necessary to address those gaps.

According to CDC officials, all entities that received direct federal funding have met the requirements for Phase I of the federal pandemic funds.

For Phase II, recipients were expected to comply with the following four priority activities, among others:

- development of a jurisdictional work plan to address gaps identified by the CDC self-assessment process in Phase I;
- development of and exercise an antiviral drug distribution plan;
- development of a pandemic exercise program that includes medical surge, mass prophylaxis,²⁰ and nonpharmacological public health

²⁰Prophylactic use of medications is providing the medicine before an individual is diagnosed.

interventions²¹ and a community containment plan²² with emphasis on closing schools and discouragement of large public gatherings at a minimum; and

- submission of an influenza pandemic operational plan to CDC.

According to HHS, CDC has reviewed whether recipients met the requirements identified in the Phase II guidance.²³

In addition, recipients were asked to document the process used to engage Indian tribal governments in Phases I and II and to develop and implement an influenza pandemic preparedness exercise program involving community partners to exercise their capabilities and prepare an after-action report highlighting necessary corrective actions. Unlike Phase I in which there is no mention of DHS's Homeland Security Exercise and Evaluation Program (HSEEP),²⁴ in Phase II CDC encouraged, but did not require, recipients to use HSEEP for disaster planning and exercising efforts. HSEEP guidance defines seven different types of exercises, each of which is either discussions-based or operations-based. Discussions-based exercises are a starting point in the building block approach of escalating exercise complexity. These types of exercises typically highlight existing plans, policies, interagency and interjurisdictional agreements, and procedures and focus on strategic, policy-oriented issues. An example of a discussions-based exercise is a tabletop exercise that can be used to assess plans, policies, and procedures or to assess the systems needed to guide the prevention of, response to, and recovery from a defined incident. Operations-based exercises are characterized by an actual reaction to

²¹Nonpharmaceutical interventions are used to reduce the spread of an infectious disease without use of pharmaceutical products such as vaccines. Examples of nonpharmaceutical interventions include isolation and treatment with influenza antiviral medications, voluntary home quarantine, dismissal of students from school and school-based activities, and use of social distance measures to reduce contact between adults in the community and workplace.

²²A community containment plan includes community-level interventions designed to limit the transmission of a pandemic virus.

²³According to HHS, for example, CDC reviewed whether recipients developed and exercised the antiviral drug distribution plan and submitted state operational pandemic plans.

²⁴HSEEP is a capabilities- and performance-based exercise program that provides a standardized policy, methodology, and terminology for exercise design, development, conduct, evaluation, and improvement planning.

simulated intelligence; response to emergency conditions; mobilization of apparatus, resources, and networks; and commitment of personnel, usually over an extended period. These exercises are used to validate the plans, policies, agreements, and procedures assessed in discussions-based exercises. An example of an operations-based exercise is a full-scale exercise, which is a multiagency, multijurisdictional, multiorganizational exercise that validates many facets of preparedness. CDC's federal pandemic funding guidance for Phase I and II did not explicitly specify the type of exercises to be conducted; the exception was the mass prophylaxis exercise for Phase II, which was required to be an operations-based exercise. In order to be compliant with HSEEP protocols, there are four distinct performance requirements. They include (1) conducting an annual training and exercise plan workshop and developing and maintaining a multiyear training and exercise plan, (2) planning and conducting exercises in accordance with the guidelines set forth by HSEEP, (3) developing and submitting an after-action report, and (4) tracking and implementing corrective actions identified in the after-action report.

For Phase II, the National Governors Association conducted a series of nine influenza pandemic regional workshops for states between April 2007 and January 2008 to enhance intergovernmental and interstate coordination. In a February 2008 issue brief, the National Governors Association reported its results from five regional influenza pandemic preparedness workshops involving 27 states and territories conducted between April and August 2007. The workshops were designed to identify gaps in state influenza pandemic preparedness—specifically in non-health-related areas such as continuity of government, maintenance of essential services, and coordination with the private sector, and to examine strengths and weaknesses of coordination activities among various levels of government. The workshops also included a discussions-based exercise focused on regional issues.²⁵

For Phase III, recipients were asked to describe ongoing influenza pandemic-related priority projects that would improve exercising and response capabilities specifically for an influenza pandemic. Phase III required recipients to fill planning gaps identified in Phase I and II. In

²⁵National Governors Association Center for Best Practices, *Issue Brief: Pandemic Preparedness in the States: An Interim Assessment from Five Regional Workshops* (Washington, D.C.: February 2008).

addition, recipients were expected to comply with the following requirements, among others:

- submit workplans that included specific influenza pandemic planning, implementation, and evaluation of activities;
- update the existing influenza pandemic operational plan based on CDC's assessment on six priority thematic areas,²⁶ by January 2008;
- create an exercise strategy and schedule; and
- utilize the tools developed by DHS's HSEEP to create planning, training, and exercise evaluation programs, which includes an after-action report, improvement plan, and corrective action program for each seminar, tabletop, functional, or full-scale exercise conducted.

States Have Made Progress in Developing Their Influenza Pandemic Plans

Over the past several years, states have made progress in developing pandemic plans. In 2006, CDC reported that most states did not have complete influenza pandemic plans addressing areas such as enhancing surveillance and laboratory capacity, managing vaccines and antivirals, and implementing community containment measures to reduce influenza transmission.²⁷ However, all 50 states, territories, and the District of Columbia now have influenza pandemic plans according to CDC officials. Trust for America's Health, a health advocacy nonprofit organization, reported that the type of publicly available influenza pandemic plan varied from a comprehensive influenza pandemic plan to free-standing annexes to emergency management plans, to mere summaries of a state's influenza pandemic plan.²⁸

At the time of our review, all five states we reviewed had influenza pandemic plans that focused on leadership, surveillance and laboratory testing, vaccine and antiviral distribution, and communications. Some

²⁶CDC conducted an assessment of six priority thematic areas, which included mass vaccination, continuity of operations plan, communications, surveillance and laboratory, antiviral distribution, and community containment.

²⁷CDC analyzed data taken from its Pandemic Influenza State Self-Assessments conducted in April 2006 using 49 states where progress was reported in a number of key activities as either being completed, in progress, or not started.

²⁸Trust for America's Health, *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism* (Washington, D.C.: December 2007).

state plans included sections on education and training, and infection control. Two of the three localities that received the federal pandemic funds in our study addressed similar types of topics, such as disease surveillance and laboratory testing, health care planning, vaccine and antiviral distribution, mental health response, and communications in their influenza pandemic plans. Most of the remaining urban and rural localities also primarily addressed similar topics.

States and Localities We Reviewed That Received Federal Pandemic Funds Involved HHS and CDC in Planning

In planning for an influenza pandemic, officials from three of the five states and two of the three localities that received the federal pandemic funds told us that they interacted with HHS and CDC in planning for a pandemic. However, federal officials did not reach out to states and localities when the National Pandemic Implementation Plan was being developed and the PFOs for influenza pandemic had limited interaction with the selected states and localities.

At the time of our site visits, officials from three of the five states and two of the three localities that received direct federal funding reported interacting with HHS and CDC in planning for an influenza pandemic to clarify funding requirements and expectations. CDC officials in the Coordinating Office for Terrorism Preparedness and Emergency Response also told us that they reviewed reports from the states and local government recipients on how they had met the federal pandemic funding requirements. CDC then provided feedback to the states and localities on how well they were meeting the requirements. In addition, CDC officials told us that they provided technical assistance when requested.

While the federal government has provided some support to states in their planning efforts, states and localities have had little involvement in national planning for an influenza pandemic. The National Pandemic Implementation Plan lays out a series of actions and defines responsibilities for those actions. The National Pandemic Implementation Plan includes 324 action items, 17 of which call for states and local governments to lead national and subnational efforts, and 64 in which their involvement is needed. In our August 2007 report, we highlighted that key stakeholders such as state and local governments were not directly involved in developing the action items in the National Pandemic Implementation Plan and the performance measures that are to assess progress, even though the National Pandemic Implementation Plan relies

on these stakeholders' efforts.²⁹ Stakeholder involvement during the planning process is important to ensure that the federal government's and nonfederal entities' responsibilities and resource requirements are clearly understood and agreed upon. Moreover, HHS ASPR officials confirmed that the National Pandemic Implementation Plan was developed by the federal government without any state input. Officials from all of the states and localities reviewed told us that they were not directly involved in developing the National Pandemic Implementation Plan. Officials from all five of the states and seven of the localities were aware of the National Pandemic Implementation Plan. Officials from Taylor County (Florida), Peoria County (Illinois) and Washington County (New York) had not seen the National Pandemic Implementation Plan. State officials from Florida, New York, and Texas, and officials from two localities in California and one locality in New York reported that they used its action items for their own planning efforts.

In addition, states and localities reported limited interaction with the predesignated federal PFOs and FCOs in coordinating influenza pandemic efforts. According to the national PFO for influenza pandemic, the PFOs for influenza pandemic had limited interaction with state governments for influenza pandemic efforts because it was unclear whether the PFO structure for an influenza pandemic would remain in the *National Response Framework* until it was issued in January 2008, and finalized in March 2008. The Secretary of Homeland Security sent letters in December 2006 and in March 2008 to state Governors on the PFO structure, and the PFO structure was discussed at the HHS- and DHS-led workshops in the five federal pandemic regions. At the time of our site visits, we found that only state officials in California and New York were aware of these federally predesignated officials. In addition, in its issue brief on the five state influenza pandemic workshops, the National Governors Association reported that the presence of the PFOs for influenza pandemic at two of their workshops was the first opportunity for most states to interact with these officials.

²⁹ [GAO-07-781](#).

States and Localities We Reviewed Involved Other State and Local Agencies, Tribal Nations, Nonprofit Organizations, and the Private Sector in Pandemic Planning

In every state and locality reviewed, officials told us that they involved other state and local agencies within their jurisdiction in accordance with federal pandemic funding requirements. Health and emergency management officials at some of the states and localities reviewed said they collaborated with each other to develop the influenza pandemic plan for public health response as required by the federal pandemic funds and the influenza pandemic annex for emergency response where applicable. For example, the Miami-Dade County Health Department (Florida) collaborated with the Miami-Dade County Pandemic Influenza Workgroup, which included stakeholders such as the Miami-Dade County Department of Emergency Management and Homeland Security, CDC Miami Quarantine Station, Medical Examiner Department, and the Miami-Dade Corrections and Rehabilitation Department to develop its influenza plan. This plan is also used as an annex to the Miami-Dade County Department of Emergency Management and Homeland Security's Comprehensive Emergency Management Plan. In some cases, both the health and emergency management departments at the state and local levels developed separate influenza pandemic plans to address health and emergency response efforts respectively, while in other cases the emergency management departments used the health department's influenza pandemic plan as an annex to their emergency operations plans.

In addition to developing their own influenza pandemic plans, state public health agencies in all the states reviewed assisted their local counterparts with their influenza pandemic plans. For example, officials from the Florida Department of Health said they used a standardized assessment tool to assess county influenza pandemic plans on 36 elements such as surveillance, response and containment, and community-based control and mitigation interventions. The tool also included a section on strengths and areas for improvement for each element. Further, New York State Department of Health officials said that they reviewed all of the county-level influenza pandemic plans and provided feedback. We also found that in some cases, localities consulted other localities' influenza pandemic plans to help them to develop their own plans. For example, officials from Stanislaus County Health Services Agency (California), Miami-Dade County Health Department (Florida), and Dallas County Health and Human Services (Texas) said they reviewed King County's (Washington) influenza pandemic plan to help them develop their own plans.

Officials at all 15 of the states and localities reviewed also said they assisted other state and local agencies within their jurisdiction in their influenza pandemic efforts by reviewing each other's plans or sharing information. For example, New York State Department of Health officials

said that as the lead agency responsible for influenza pandemic planning efforts, they participated in and coordinated meetings with other state agencies such as the Unified Court System and Department of Correctional Services to discuss areas such as infection control and community containment, visitation policies during an influenza pandemic, management of sick inmates, emergency staffing plans, and employee education and training.

Officials from 6 of the 15 states and localities we reviewed reported that they had tribal nations within their jurisdictions. Of these 6, only officials from California, Florida, New York state, and Miami told us that they had included tribal nations in their influenza planning efforts, as required by the federal pandemic funds. For example, officials from the New York State Department of Health said they provided guidance to the Mohawk and Seneca tribes in developing influenza pandemic plans. Tribal nation representatives also had access to the state's health provider network and were invited to influenza pandemic training sessions and monthly influenza pandemic conference calls. Officials from Texas and Taylor County (Florida) reported that they did not include tribal nations in their influenza planning efforts. Texas Department of State Health Services officials reported that there are three tribes within the state with which the respective counties are coordinating. In Taylor County (Florida), officials reported that they had not yet involved their local tribe, the Miccosukee tribe, in their influenza pandemic planning efforts.

Officials from all five states and four localities also reported that they provided guidance or technical assistance for continuity planning efforts to nonprofit organizations, and officials from all five states and seven localities told us that they provided the same assistance to the private sector. States and localities that received direct federal pandemic funding are required to involve nonprofit organizations and the private sector in planning for an influenza pandemic. For example, Peoria City/County Health Department (Illinois) officials told us that in addition to contracting with the Red Cross in providing bulk food distribution services during an influenza pandemic, they had initial discussions on how to implement isolation and quarantine. Officials from the New York City Department of Health and Mental Hygiene (New York) stated that they partnered with the New York City Department of Small Business Services and conducted six focus groups with approximately 60 participants from nonprofit and for-profit organizations to provide general information related to influenza pandemic, and to discuss the continuity strategies from CDC's Business Pandemic Influenza Planning Checklist and feasibility in adopting them.

While all five selected states and seven localities have coordinated with the private sector for influenza pandemic planning, several officials from state agencies in Florida and Illinois, and local agencies in Los Angeles County (California), Chicago (Illinois), and Dallas County (Texas) have focused specifically on critical infrastructure sectors, such as transportation (highway and motor carriers), food and agriculture, water, energy (electricity), and telecommunications (communications). Officials from the Dallas County Department of Health and Human Services (Texas) said that they assisted a local power company and a grocery chain on continuity of operations planning for an influenza pandemic. The National Governors Association reported in its February 2008 issue brief that few states from its five regional workshops had defined the roles and responsibilities of private sector entities.³⁰ Moreover, potential shortages of critical goods and services—specifically, food, electricity, and transportation capacity—were cited as key areas of concern across all five National Governors Association-led workshops. While Idaho, Minnesota, Montana, North Dakota, South Dakota, and Utah were less concerned about the food supply due to longstanding practices of stockpiling against severe weather and other threats, other participating states were concerned that they did not have agreements in place with the private sector food distribution and retail systems.

HHS Has Found Major Gaps in States' Influenza Pandemic Plans

Since we visited these states and localities, HHS provided feedback to the states in November 2007 on whether their influenza pandemic plans addressed certain priority areas, such as fatality management, and found that there were major gaps nationally in the plans in these priority areas. In response to an action item in the National Pandemic Implementation Plan, HHS led a multidepartment effort to review pertinent parts of states' influenza pandemic plans in 22 priority areas³¹ along with other federal agencies such as the Departments of Agriculture, Commerce, Education, Homeland Security, Justice, Labor, and State under the auspices of the

³⁰National Governors Association Center for Best Practices, *Issue Brief: Pandemic Preparedness*.

³¹Initially, there were 24 priority areas that states had to address. However, HHS officials in ASPR stated that the interagency reviewers combined two priority areas into one priority area related to human resources and did not review one priority area related to state advisories regarding diplomatic missions. So, in total, states were assessed on 22 priority areas.

Homeland Security Council.³² For example, DHS was responsible for reviewing the priority area of how states worked with the private sector to ensure critical essential services. States were required to submit parts of their plans that addressed the priority areas to CDC by March 2007. The participating departments reviewed the pertinent parts of the plans and HHS compiled the results into individual draft interim assessments, which included the status of planning for each entity and how they measured against the national average for the priority areas, and provided this feedback to the states.³³

As shown in table 1, on average, states had major gaps in all areas, with a ranking of “many major gaps” in 16 of the 22 priority areas and “a few major gaps” in the remaining 6 priority areas, as defined by HHS.³⁴ An official in HHS ASPR told us that generally, the states fared better in the public health priority areas such as mass vaccination and antiviral drug distribution plans than in other areas such as school closures and sustaining critical infrastructure. As we will discuss in more detail later in the report, we found that the areas in which state and local officials were looking for additional federal guidance were often the same areas that were rated by HHS as having “many major gaps” in planning.

³²Action item 6.1.1.2. of the National Pandemic Implementation Plan states that HHS, in coordination with DHS, shall review and approve State Pandemic Influenza plans to supplement and support DHS state Homeland Security Strategies to ensure that federal homeland security grants, training, exercises, technical assistance, and other forms of assistance are applied to a common set of priorities, capabilities, and performance benchmarks.

³³HHS Assistant Secretary for Preparedness and Response, *Pandemic and All-Hazards Preparedness Act Progress Report, Public Law 109-417* (Washington, D.C.: November 2007).

³⁴The national average for each of the 22 priority areas was computed as follows. Each of the 50 states, five territories, and the District of Columbia were given a score ranging from 0 to 7 on each of the 22 priority areas. For each priority area, this score was determined by adding the number of points received by the state or territory on three key factors: (1) preparedness planning (a maximum of 3 points could be given)—assessing whether the 56 entities addressed major preparedness objectives in guidance documents and other publications for each priority area, (2) operations orientation (a maximum of 3 points could be given)—assessing whether roles and responsibilities are assigned for each priority area, and (3) self-assessment of operations plan (a maximum of 1 point could be given)—assessing whether states provided evidence that an exercise was conducted for at least one of the priority areas. The national average for each priority was then calculated by adding up all 56 scores and dividing by 56. HHS ASPR officials explained that a total score of 0–1 equated to no or inadequate information provided, 2–3 equated to many major gaps, 4–5 equated to a few major gaps, and 6–7 equated to adequate or no major gaps.

Table 1: National Average of Status of States' Pandemic Plans by Priority Areas and Lead Federal Government Reviewer

Priority areas	National average on status of planning	Lead reviewer for the federal government
Mass Vaccination	A Few Major Gaps	HHS/CDC
Public Health Continuity of Operation Plan	A Few Major Gaps	HHS/CDC
Surveillance and Laboratory	A Few Major Gaps	HHS/CDC
Communication	A Few Major Gaps	HHS/CDC
Community-Wide Healthcare Coalitions	A Few Major Gaps	HHS/ASPR/Health Resources and Services Administration
Facilitating Medical Surge	Many Major Gaps	HHS/ASPR/Health Resources and Services Administration
Fatality Management	Many Major Gaps	HHS/ASPR/Health Resources and Services Administration
Antiviral Drug Distribution Plan	A Few Major Gaps	HHS/CDC
Community Containment Plan	Many Major Gaps	HHS/CDC
Policy Process for School Closure and Communication	Many Major Gaps	Department of Education
Education and Social Services in the Face of School Closures	Many Major Gaps	Department of Education
Sustain/Support 17 Critical Infrastructure Sectors and Key Assets ^a	Many Major Gaps	DHS
Working with the Private Sector to Ensure Critical Essential Services	Many Major Gaps	DHS
State Plans Must Conform to All National Response Plan/National Incident Management System Requirements	Many Major Gaps	DHS
Mitigate the Impact of an Influenza Pandemic on Workers in the State	Many Major Gaps	Department of Commerce
Assisting Employers in the State	Many Major Gaps	Department of Commerce
Employment Policies during an Influenza Pandemic	Many Major Gaps	Department of Labor
Human Resource Policies for State Employees	Combined with Previous Priority	Department of Labor
Coordination of Law Enforcement	Many Major Gaps	Department of Justice
Critical Essential Function for Food Safety ^b	Many Major Gaps	Department of Agriculture, HHS/Food and Drug Administration
Operational Status of State-Inspected Slaughter and Food Processing Establishments	Many Major Gaps	Department of Agriculture, HHS/Food and Drug Administration
Communication Strategy for USDA FSIS and FDA's Federal State Relationships	Many Major Gaps	Department of Agriculture, HHS/Food and Drug Administration
Ensure Adequate Reporting System Regarding Food Safety	Many Major Gaps	Department of Agriculture, HHS/Food and Drug Administration
State Advisories Regarding Diplomatic Missions	Not Reviewed	Department of State

Source: GAO analysis of HHS data.

Notes: The analysis is based on data from HHS Guidance to States on Pandemic Plans, January 2007, and HHS Feedback to States on Pandemic Plans, November 2007.

^aSince the HHS-led review of the first round of state influenza pandemic plans, on April 30, 2008, DHS designated critical manufacturing as an additional critical infrastructure sector under the *National Infrastructure Protection Plan (NIPP)*, which brings the current number of critical infrastructure and key resources sectors from 17 to 18.

^bOnly 28 states were required to address this priority area.

Every state received individual comments from CDC on the strengths and weaknesses of their influenza pandemic plans in six priority areas.³⁵ According to HHS officials in ASPR, states also received feedback in some of the remaining priority areas. In addition, states received general comments from the Departments of Agriculture, Commerce, Labor, Homeland Security, and Justice. The Departments of Commerce, Labor, and Homeland Security noted that many state influenza pandemic plans did not address the effect of social distancing in private workplaces or state agencies. Nor did they address issues related to loss of jobs and income for workers, particularly for those needing to stay home to care for children dismissed from school or to care for themselves or ill relatives. Further, they concluded that many states needed to develop occupational safety and health plans that dealt with infection control and other influenza pandemic issues such as worker behavioral and mental health concerns.

HHS, DHS, and other federal agencies issued guidance to states in March 2008 to assist them in updating their current influenza pandemic plans. These updated plans are due in July 2008. HHS will provide feedback to them on the strengths and weaknesses of their plans as they did for the previous review of plans.

³⁵These six priority areas were mass vaccination, public health continuity of operations plan, surveillance and laboratory, communication, antiviral drug distribution plan, and community containment plan.

All States and Localities Reviewed Have Conducted or Participated in at Least One Exercise to Test Their Planning for an Influenza Pandemic and Have Incorporated Lessons Learned

Disaster planning, including for an influenza pandemic, needs to be tested and refined with a rigorous and robust exercise program to expose weaknesses in planning and allow planners to address the weaknesses. Exercises—particularly for the type and magnitude of emergency incidents such as a severe influenza pandemic for which there is little actual experience—are essential for developing skills and identifying what works well and what needs further improvement.

The first phase of the federal pandemic funds required states and localities that received this funding to test their influenza pandemic plan. CDC officials stated that their expectation was that the recipients would conduct a gap analysis using CDC’s self-assessment tool to identify objectives to exercise to improve their plans and then exercise the identified vulnerabilities of their plans, rather than testing their entire plan. According to CDC officials, all states and localities that received this funding have met the requirement to conduct a discussions-based or operations-based exercise to test their influenza pandemic plans and to prepare an after-action report. The second phase of funding required states and localities that receive the funding directly to conduct an exercise that would test an antiviral drug distribution plan and to develop an influenza pandemic exercise schedule that included medical surge, mass prophylaxis, and nonpharmaceutical public health interventions such as closing schools and discouragement of large public gatherings. As noted earlier, HHS stated that CDC has reviewed whether recipients met the requirements identified in the Phase II guidance.

All of the states and localities except for two of the localities in our review had conducted at least one influenza pandemic exercise to test their influenza pandemic planning. The two localities that had not conducted their own exercise had participated in discussions-based exercises in other jurisdictions. Among the states and localities that had conducted an exercise, one state and two localities conducted at least one discussions-based and an operations-based exercise, one state and one locality conducted at least one operations-based exercise, and the remaining three states and five localities conducted at least one discussions-based influenza pandemic exercise. For example, the Stanislaus County Health Services Agency (California) conducted an influenza pandemic discussions-based exercise and the New York City Department of Health and Mental Hygiene (New York) conducted both influenza pandemic discussions-based exercises and operations-based exercises. In addition, state agencies in New York, Texas, and Illinois conducted or funded regional influenza pandemic exercises that included multiple jurisdictions within each state. For example, the Peoria City/County Health Department

(Illinois) participated in an influenza pandemic discussions-based exercise with nine other counties. According to the National Governors Association, the states' influenza pandemic exercises have been almost exclusively discussions-based exercises and few have held regional or multistate exercises. In addition, health departments conducted influenza pandemic exercises at all but one of the states and localities that had conducted at least one influenza pandemic exercise. In all but one of the states and localities reviewed, emergency management officials had either conducted or participated in an influenza pandemic exercise.

Officials from All States and Localities Reviewed Reported That Lessons Learned from Exercises Were Incorporated into Influenza Pandemic Planning

Officials of all states and localities reviewed reported they had incorporated lessons learned from exercises into their influenza pandemic planning. Officials told us that the changes made as a result of an exercise included buying additional medical equipment and providing training. For example, officials at the New York City Department of Health and Mental Hygiene (New York) informed us that an influenza pandemic exercise resulted in identifying a potential shortage of ventilators. In response, they purchased 70 ventilators that were relatively easy to train staff to use, which were being used by selected hospitals. Other influenza pandemic exercises resulted in providing additional training. For example, Stanislaus County Health Services Agency (California) officials identified the need for their staff to be trained in the National Incident Management System (NIMS), which is a consistent nationwide approach to enable all government, private-sector, and nongovernmental organizations to work together to prepare for, respond to, and recover from domestic incidents. All county staff have been subsequently trained in NIMS.

Furthermore, state and local officials stated that influenza pandemic exercises led to modifying policies or influenza pandemic plans. Officials at the Illinois Department of Public Health realized during an exercise that a judge's ruling would be needed to quarantine an individual with a suspected contagious disease. As a result, the department sought and obtained amendments to its department's authority that if voluntary compliance cannot be obtained, then the department can quarantine an individual with a suspected contagious disease for 2 days before a judge's ruling is necessary. In addition, officials at the Dallas County Department of Health and Human Services (Texas) reported that they identified the need for, and subsequently developed, an appendix to their influenza pandemic plan on school closures during a pandemic that included factors for schools to consider in deciding when to close schools and for how long.

HHS and DHS Could Further Assist States in Addressing Gaps Identified in Pandemic Planning

HHS (including CDC), DHS and other federal agencies have provided a variety of influenza pandemic information and guidance for states and local governments through Web sites and state and regional meetings. HHS and CDC have disseminated pandemic preparedness checklists for workplaces, individuals and families, schools, health care, and community organizations, with one geared for state and local governments.³⁶ HHS and CDC have also provided additional influenza pandemic guidance including *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States* (February 2007). CDC and other federal agencies are currently considering the *Interim Guidance for the Use of Intervals, Triggers, and Actions in Pandemic Influenza Planning* that was developed by HHS and CDC and provides a framework and thresholds for implementing student dismissal and school closure. HHS also issued *Interim Public Health Guidance for the Use of Facemasks and Respirators in Non-Occupational Community Settings during an Influenza Pandemic*, and funded *Providing Mass Medical Care with Scarce Resources: A Community Planning Guide* (November 2006). CDC officials stated that the journal CHEST published four papers on providing mass critical care with scarce resources for all-hazards in May 2008. In addition, HHS funded guidance on exercising for an influenza pandemic, including discussions-based exercises for influenza pandemic preparedness for local public health agencies.³⁷ Furthermore, the federal planning guidance for states to update their influenza pandemic plans provided by HHS, DHS, and other federal agencies includes references to federal guidance that pertains to the topics on which the states' plans will be assessed. The guidance includes preparedness and planning advice and information on specific tasks and capabilities that the states' plans should contain for each of the priority areas for which the states will be assessed. The guidance contains information on several of the priority areas that state and local officials were looking for additional guidance on and that were rated as having "many major gaps" in planning in the first assessment, such as fatality management and community containment. However, while the guidance document states what the states' plans should contain for each of the topics, it does not include how to implement these tasks and capabilities.

³⁶HHS and CDC, *State and Local Pandemic Influenza Checklist* (Dec. 2, 2005).

³⁷RAND Corporation, *Facilitated Look Backs: A New Quality Improvement Tool for Management of Routine Annual and Pandemic Influenza* (Santa Monica, Calif.: 2006) and *Tabletop Exercises for Pandemic Influenza Preparedness in Local Public Health Agencies* (Santa Monica, Calif.: 2006).

HHS and DHS, in coordination with other federal agencies, have also developed draft guidance on how to allocate limited supplies of vaccines, including target groups for individuals, and are working on similar guidance for antivirals. They are also working on guidance on the prophylactic use of antivirals (administering antivirals to individuals who had not shown symptoms).³⁸ However, HHS and DHS officials acknowledged that the federal government has not provided guidance on some of the influenza pandemic-specific topics that state and local officials had told us that they would like guidance on from the federal government, such as ethical decision making and liability and legal issues.

There are also two federal Web sites that contain influenza pandemic information. The purpose of the Web site www.pandemicflu.gov is to be one-stop access to U.S. government avian and pandemic flu information. The site includes guidance and information on state and local planning and response activities, such as all state influenza pandemic plans. The Web site www.llis.dhs.gov is a national network of lessons learned and best practices for emergency response providers and homeland security officials and contains information on many different topic areas, such as cyber security and wildland fires. Lessons Learned Information Sharing System (LLIS) officials stated that the best practices are vetted by working groups of subject matter experts. LLIS has an influenza pandemic topic area that includes news, upcoming events, plans and guidance, after-action reports, and best practices. An LLIS representative also informed us that there is an influenza pandemic forum that acts as a message board for LLIS users to discuss topics, which have included how to implement teleworking during an influenza pandemic. In addition, there is an influenza pandemic channel on the Web site that has a document and resource library and a message board, including topics such as antiviral and vaccine planning. HHS officials stated that CDC and LLIS have created a secure channel for state and local health departments to post and share influenza pandemic exercise information. According to an LLIS representative, the secure channel contains the influenza pandemic exercise schedules for states and localities that receive the funding directly and there are plans to include after-action reports from the exercises on the Web site.

³⁸*Draft Guidance on Allocating and Targeting Pandemic Influenza Vaccine* (Oct. 17, 2007), and *Proposed Considerations for Antiviral Drug Stockpiling by Employers In Preparation for an Influenza Pandemic and Proposed Guidance on Antiviral Drug Use during an Influenza Pandemic*.

There are also several nonfederal Web sites that contain influenza pandemic practices on particular topics. The Center for Infectious Disease Research and Policy at the University of Minnesota has collected and peer-reviewed influenza pandemic “promising practices” that can be adapted or adopted by public health stakeholders. Their Web site (<http://www.pandemicpractices.org/practices/list.do?topic-id=13>) has practices on three themes: models for care (surge capacity, standards of care, triage strategies, out-of-hospital care, collaborations), communications (risk communications, community engagement, and resiliency), and mitigation (nonpharmaceutical interventions). In addition, National Public Health Information Coalition officials said that they are planning to post influenza pandemic communications on their Web site. CDC officials also stated that CDC has a cooperative agreement with the Association of State and Territorial Health Officials and the National Association of County and City Health Officials to provide influenza pandemic best practices and tools that states and localities can download from their respective Web sites.

In addition to providing guidance, HHS has also convened state influenza pandemic planning summits and funded regional state influenza pandemic workshops. To help coordinate influenza pandemic planning, HHS and other federal agencies, including DHS, held “State Pandemic Planning Summits” with the public health and emergency response community in all states in 2005 and 2006. As part of the summits, the Secretary of Health and Human Services signed memorandums of understanding (MOU) with each state that identified shared common goals and shared and independent responsibilities between HHS and the individual state for influenza pandemic planning and preparedness. For example, the MOU between HHS and the state of California noted that states and local communities are responsible under their own authorities for responding to an influenza pandemic outbreak within their jurisdictions and having comprehensive influenza pandemic preparedness plans and measures in place to protect their citizens. In addition, to further assist states and localities with their influenza pandemic preparedness efforts, HHS funded the National Governors Association to conduct a series of influenza pandemic regional workshops for states, the first five of which are discussed earlier. A National Governors Association official stated the association held nine workshops between April 2007 and January 2008 and that it is not planning to conduct additional influenza pandemic workshops for states.

In addition, in May 2008, FEMA hosted an influenza pandemic exercise and seminar for senior executives. The purpose of the exercise, which

involved FEMA officials, the Pandemic Region A PFO team, and a number of states in Pandemic Region A, was to determine best practices for communication and coordination during an influenza pandemic response. The senior executive seminar, which included officials from CDC, HHS, DHS, and a number of states in Pandemic Region C, was intended to address pandemic risk, challenges, and issues, both regionally and nationally. FEMA is also planning to host another influenza pandemic seminar in May 2008 for the other states in Pandemic Region C that did not participate in the previous seminar.

State and Local Officials Reported That They Wanted Additional Federal Influenza Pandemic Guidance

Despite these efforts, state and local officials from all of the states and localities we interviewed told us that they would like additional federal influenza pandemic guidance from the federal government on specific topics to help them to better plan and exercise for an influenza pandemic. Although, as discussed earlier, there is federal guidance for some of these topics, the existing guidance may not have reached state and local officials or may not address the particular concerns or circumstances of the state and local officials we interviewed.

Three of the areas on which state and local officials reported that they wanted federal influenza pandemic guidance were rated as having “many major gaps” nationally among states’ influenza pandemic plans in the first HHS-led review of their influenza pandemic plans. These areas were (1) implementing the community interventions, such as closing schools, discussed in the *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States* (which is called community containment in the federal priority topics), (2) fatality management, and (3) facilitating medical surge.³⁹ Two other areas that state and local officials told us that they would like additional federal

³⁹Medical surge is the capability to rapidly expand the capacity of the existing health care system. In an influenza pandemic, however, communities will not be able to count on receiving personnel or medical equipment from elsewhere, as they might in other types of emergencies. In our report on medical surge in a mass casualty event, we reviewed four key components of preparing for medical surge: increasing hospital capacity, identifying alternate care sites when hospitals are full, registering medical volunteers, and planning for altering established standards of care. The term “altered standards” generally means a shift to providing care and allocating scarce equipment, supplies, and personnel in a way that saves the largest number of lives, in contrast to the traditional focus of treating the sickest or most injured patients first. GAO, *Emergency Preparedness: States Are Planning for Medical Surge, but Could Benefit from Shared Guidance for Allocating Scarce Medical Resources*, [GAO-08-668](#) (Washington, D.C.: June 13, 2008).

influenza pandemic guidance on, mass vaccination and antiviral drug distribution, were also rated as having “a few major gaps” nationally. State and local officials also told us that they would like the federal government to provide guidance on additional topics: ethical decision making, prophylactic use of antivirals, Strategic National Stockpile utilization, liability and legal issues, and personal protective equipment.

While officials from some state and local governments were looking for guidance from the federal government, others were developing the information on their own. For example, while California Department of Health officials stated that they were developing standards and guidelines for health care professionals to use in any medical surge (including an influenza pandemic), which has since been released, Peoria City/County Health Department (Illinois) officials told us that they wanted guidance on how to deal with medical surge. In addition, the Texas Department of State Health Services developed an antiviral prioritization plan, while Illinois Department of Public Health officials said they would like the federal government to provide guidance on antiviral prioritization.

Two recent reports found similar concerns among state and local officials. In its February 2008 issue brief, the National Governors Association reported that states were grappling with many of the same issues that we found: community containment (school closures), antiviral prioritization, prophylactic use of antivirals, and legal issues.⁴⁰ Similarly, an October 2007 Kansas City Auditor’s Office report on influenza pandemic preparedness in the city noted that Kansas City Health Department officials would like the federal government to provide additional guidance on some of the same issues we found: clarifying community interventions such as school closings and the criteria that will trigger these measures, antiviral and vaccine prioritization, and the type of personal protective equipment to use (e.g., type of face mask).⁴¹

⁴⁰National Governors Association Center for Best Practices, *Issue Brief: Pandemic Preparedness*.

⁴¹City Auditor’s Office, City of Kansas City, Missouri, *Performance Audit: Pandemic Flu Preparedness* (October 2007).

Additional HHS and DHS State Influenza Pandemic Meetings Could Be Held to Assist States in Addressing Gaps in States' Influenza Pandemic Plans

According to the National Pandemic Implementation Plan, it is essential for states and localities to have plans in place that support the full spectrum of societal needs over the course of an influenza pandemic and for the federal government to provide clear guidance on the manner in which these needs can be met. As discussed earlier, the HHS-led assessment of the states' pandemic plans was in response to an action item in the National Pandemic Implementation Plan that states that HHS, in coordination with DHS, shall review and approve states' influenza pandemic plans. The assessment found "many major gaps" in 16 of the 22 priority areas in the states' pandemic plans.

HHS and DHS, in coordination with the Homeland Security Council, Office of Personnel Management, and the Departments of Agriculture, Commerce, Defense, Education, Homeland Security, Justice, Labor, State, Transportation, the Treasury, and Veteran Affairs, led a series of five workshops for states in the five influenza pandemic regions shown in figure 1 in January 2008. Prior to the meetings, HHS ASPR officials told us that the workshops would be an opportunity for states to request additional influenza pandemic guidance from the federal government. We observed two of the five workshops, and received summaries from HHS of all five workshops. The discussions at the workshops mainly focused on the draft guidance and evaluation criteria for the second round of assessing the state pandemic plans, but the participants also raised concerns and requested guidance.⁴² Some of the common high-level themes discussed at some of these workshops included a need for more involvement from federal agencies in communicating with state counterparts. The March 2008 planning guidance included a list of contacts and phone numbers in federal agencies for the state officials to help them to communicate with their federal counterparts as they update their pandemic plans. Participants also requested guidance on various topics. Among the five workshops conducted, state officials in three of the workshops sought guidance on how to handle school closures and ports of entry issues while state officials in two of the workshops wanted to know how to plan with CDC quarantine stations. In addition, in three of the workshops, state officials discussed wanting more critical infrastructure information or guidance. For example, state officials discussed that there are challenges for state health departments to work with the critical

⁴²HHS conducted these workshops with states to fulfill the requirement under PAHPA of 2006 for the Secretary of Health and Human Services to develop and disseminate criteria for an effective plan for responding to a pandemic. See Section 201 of the act, amending 42 U.S.C. § 247d-3a.

infrastructure sectors because they have no authority to influence their participation in influenza pandemic planning. However, there was not an opportunity to explore these issues in greater depth during the meetings. A senior DHS official in the Office of Health Affairs reported that there are no plans to conduct further regional state workshops on influenza pandemic.

HHS, DHS, and the Department of Labor hosted three Web seminars that provided an overview of the March 2008 planning guidance and included time for discussion. In addition, according to HHS, state-specific assistance has been provided through conference calls.

Additional meetings of states by federal influenza pandemic region, led by HHS and DHS, and in coordination with other relevant federal agencies, could be held and their purpose broadened to provide a forum for state and federal officials to address the identified gaps in states' planning. The federal agencies that were the lead departments for rating priority areas in the states' influenza pandemic plans could provide additional corresponding information and guidance on their respective priority areas to the states on their common challenges. Federal agencies could provide assistance to the states on the priority areas that they rated as having "many major gaps" in planning nationally. For example, the Department of Justice could provide assistance on the coordination of law enforcement, the Department of Agriculture could provide assistance on the operational status of state-inspected slaughter and food processing establishments, and the Department of Education on the policy process for school closures and communication. With plans due in July 2008 for a second round of review, states' plans may still have major gaps that could be addressed by federal and state governments working together to address these challenges.

The meetings could also provide a forum for states to build networks with one another and federal officials. In our October 2007 report related to critical infrastructure protection challenges that require federal and private sector coordination for an influenza pandemic, we found that for influenza pandemic efforts, DHS has used critical infrastructure coordinating councils primarily to share influenza pandemic information across sectors and government levels rather than to address many of the identified challenges. Thus, we recommended that DHS lead efforts to encourage the councils to consider and address the range of identified

challenges, such as clarifying roles and responsibilities between federal and state governments, for a potential influenza pandemic.⁴³ DHS concurred with our recommendation and is planning initiatives—with some underway—to address our recommendation, such as the development of pandemic contingency plan guidance tailored to each critical infrastructure sector. Similarly, during the National Governors Association’s workshops, state officials reported that they would be interested in the influenza pandemic response activities initiated in neighboring states, but few, if any mechanisms, exist for states to gain regional situational awareness. According to the National Governors Association’s report, the networks that do exist are informal communications among peers, which are built on personal relationships and are not integrated into any formal communications capacity or system. The National Governors Association also reported that states must coordinate their plans among state, local, and federal agencies and that this coordination should be tested through exercises with neighboring states and with relevant federal officials. In addition, the March 2008 planning guidance to help states update their plans notes that among the keys for successful preparation for an influenza pandemic are collaborating with other states to share promising practices and lessons learned and to collaborate with regional PFOs. Both of these collaborative relationships with other states and with the federal government could be facilitated by additional meetings and discussions within the framework of the federal pandemic regional structure.

Conclusions

HHS is to complete distribution in 2008 of all the federal pandemic funds provided by Congress for states and localities, but HHS, DHS, and other federal agencies can continue to provide other types of support to states. Although all states have developed influenza pandemic plans, the HHS-led review of states’ influenza pandemic plans in coordination with other federal agencies found “many major gaps” in planning nationally in 16 out of 22 priority areas. While the federal government has provided influenza pandemic guidance on a variety of topics, state and local officials told us they would welcome additional guidance. These requests highlight some of the areas where federal guidance does not exist and other areas where guidance may exist, but may not have reached state and local officials or

⁴³GAO, *Influenza Pandemic: Opportunities Exist to Address Critical Infrastructure Protection Challenges That Require Federal and Private Sector Coordination*, [GAO-08-36](#) (Washington, D.C.: Oct. 31, 2007).

may not have addressed their particular concerns. In addition, three of the topics that state and local officials told us that they wanted federal influenza pandemic guidance on—community containment, fatality management, and facilitating medical surge—were rated as having “many major gaps” nationally among states’ influenza pandemic plans in the first HHS-led review of states’ influenza pandemic plans. Moreover, the National Governors Association’s workshops and the March 2008 planning guidance underscore the value of states collaborating with each other and the federal government for pandemic planning. With plans due in July 2008 for a second round of review, states’ plans may still have major gaps that can only be addressed by federal and state governments working together to address these challenges.

Although a senior DHS official in the Office of Health Affairs reported that there are no plans to hold additional workshops in the five pandemic regions, these workshops could be a useful model both for sharing information across states and building relationships within regions and to address the identified gaps in states’ planning, and to maintain the momentum that has already been started by HHS and DHS to continue to work with the states on pandemic preparedness given the upcoming governmental transition.

Recommendation for Executive Action

To help maintain a continuity of focus on state pandemic planning efforts and to further assist states in their pandemic planning, we recommend that the Secretaries of Health and Human Services and Homeland Security, in coordination with other federal agencies, convene additional meetings of the states in the five federal influenza pandemic regions to help them address identified gaps in their planning.

Agency Comments

We provided a draft of the report of the Secretaries of Health and Human Services and Homeland Security for their review and comment. HHS generally concurred with our recommendation in an e-mail. The department stated that additional regional workshops would be impractical in the short-term because of HHS’ current involvement in the update of the states’ pandemic plans. However, the department believes that the regional workshops already held were uniformly successful and is prepared to arrange for similar sessions in the future if states would find such sessions useful. HHS also provided us with technical comments, which we incorporated as appropriate. DHS generally agreed with the contents of the report and concurred with our recommendation. DHS’s comments are reprinted in appendix II. We also provided draft portions of

the report to the state and local officials from the five states and 10 localities we reviewed to ensure technical accuracy. We received no comments from these states and localities.

As agreed with your offices, we plan no further distribution of this report until 30 days from its date, unless you publicly announce its contents earlier. At that time, we will send copies of this report to the Secretary of Health and Human Services and the Secretary of Homeland Security; and other interested parties. We will also make copies available to others upon request. In addition, this report is available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any further questions about this report, please contact me at (202) 512-6543 or steinhardt@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report include Sarah Veale, Assistant Director; Maya Chakko, Analyst-in-Charge; Susan Sato; Susan Ragland; Karin Fangman; David Dornisch; and members of GAO's Pandemic Working Group.



Bernice Steinhardt
Director, Strategic Issues

List of Requesters

The Honorable Judd Gregg
Ranking Member
Committee on the Budget
United States Senate

The Honorable Daniel K. Akaka
Chairman
Subcommittee on Oversight of Government Management, the Federal
Workforce, and the District of Columbia
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Henry A. Waxman
Chairman
The Honorable Tom Davis
Ranking Member
Committee on Oversight and Government Reform
House of Representatives

The Honorable Bennie G. Thompson
Chairman
Committee on Homeland Security
House of Representatives

Appendix I: Objectives, Scope, and Methodology

The objectives of this study were to (1) describe how selected states and localities are planning for an influenza pandemic and how their efforts are involving the federal government, other state and local agencies, tribal nations, nonprofit organizations, and the private sector, (2) describe the extent to which selected states and localities have conducted exercises to test their influenza pandemic planning and incorporated lessons learned into their planning, and (3) identify how the federal government can facilitate or help improve state and local efforts to plan and exercise for an influenza pandemic.

To identify how selected states and localities are planning and exercising for an influenza pandemic and how the federal government can assist their efforts, from June 2007 to September 2007, we conducted site visits to the five most populous states: California, Florida, Illinois, New York, and Texas. Recognizing that we would be limited in our ability to report on all states in detail, we selected these five states for a number of reasons, including that these states

- comprised over one-third of the United States population;
- received over one-third of the total funding from the Department of Health and Human Services (HHS) and the Department of Homeland Security (DHS) that could be used for planning or exercising for an influenza pandemic, and each state received the highest amount of total HHS and DHS funding that could be used for planning and exercising for an influenza pandemic respectively within each of the five regions established by DHS for influenza pandemic preparedness and emergency response; and
- were likely entry points for individuals coming from another country given that the states bordered either Mexico or Canada or contained major ports, or both, and accounted for over one-third of the total number of passengers traveling within the United States, and over half of both inbound and outbound international air passenger traffic to and from the United States.

At each state, we interviewed officials responsible for health, emergency management, and homeland security. We also interviewed officials at 10 localities in these same states, which consisted of five urban areas and five rural counties. We interviewed officials responsible for health and emergency management at an urban area in each of the five states, which included Los Angeles County (California), Miami (Florida), Chicago (Illinois), New York City (New York), and Dallas (Texas). These urban

areas were selected based on having the highest population totals of all urban areas in the respective states as of July 2006 and high levels of international airport passenger traffic as of 2005. Three of these urban areas, Los Angeles County, Chicago, and New York City, also received federal pandemic funds.

In addition, we asked the state officials to nominate a rural county for us to interview in their states based on the following criteria: (1) has conducted some planning or exercising for an influenza pandemic; and (2) is representative of challenges and needs that other surrounding rural counties might also be facing. The state officials in each state nominated only one rural county. We interviewed officials responsible for health and emergency management in the nominated counties of Stanislaus County (California), Taylor County (Florida), Peoria County (Illinois), Washington County (New York), and Angelina County (Texas). In total we interviewed officials with 34 different agencies, which included for each state the health, emergency management, and homeland security agencies, except for Texas which had a combined emergency management and homeland security agency, and officials responsible for health and emergency management for each urban area and rural county in the five states. In both states and localities we also typically interviewed several officials from each of the agencies. In addition, in four states and four localities reviewed, we interviewed the state or local government agencies individually, and for the remainder we interviewed the state or local government agencies together. We interviewed both urban and rural counties in order to obtain the perspectives of officials at both densely populated urban areas and rural areas. We report the results of our interviewing as counts at the level of the 15 states and localities. In general, if any one of the officials we interviewed in a particular state or locality stated a factor or issue, such as lessons learned from exercises being applied to pandemic planning, then we considered that statement to apply to the state or locality as a whole. However, a limitation of our interview methodology is that we did not comprehensively or systematically survey all interviewees across the range of interview questions.

We did not interview tribal nations, and except in two cases when urban areas included private and nonprofit officials in our interviews with their agency, we did not interview private sector entities or nonprofit organizations. We focused on state and local government officials and asked these officials about their interaction with tribal nations, private sector entities, and nonprofit organizations. Finally, we interviewed the selected state and urban area's auditors on any current or planned related

audits. While the states and localities selected provided a broad perspective, we cannot generalize or extrapolate the information gleaned from the site visits to the nation. In addition, since the states that we selected were large, the most populous states, and likely entry points for people coming into the United States, the information we collected may not be as relevant to smaller, less populated states that are not likely entry points for people coming into the United States.

We also reviewed the influenza pandemic planning and exercise documents from the selected states and localities. We reviewed the state and local influenza pandemic plans for common topics, however we did not analyze the quality of the documents systematically amongst those states and localities. Instead, we relied on the HHS-led assessment of whether state's influenza pandemic plans contained 22 priority areas. We reviewed the reliability of the data reported from that assessment and determined that the data were sufficiently reliable for the purposes of this engagement. We also reviewed the states' and localities' exercise documents for commonalities across jurisdictions.

We also interviewed HHS, Centers for Disease Control and Prevention (CDC), and DHS officials about how they are working with states and localities in planning and exercising for an influenza pandemic and reviewed documentation that they provided, including the HHS-led feedback to states on their influenza pandemic plans and the March 2008 planning guidance to assist them in updating their influenza pandemic plans. Within HHS, we met with or received information from the Deputy Director of the Office of Policy and Strategic Planning within the Office of Assistant Secretary for Preparedness and Response; the Senior Advisor to the Director, Coordinating Office for Terrorism Preparedness and Emergency Response at CDC; the Regional Inspector General, Office of Inspector General; and their staff. Within DHS, we met with and or received information from the Director and Associate Chief Medical Officer for Medical Readiness, Office of Health Affairs; the Branch Chief, National Integration Center, Federal Emergency Management Agency; the National Principal Federal Official for influenza pandemic, United States Coast Guard; the Program Director, Lessons Learned Information System; and the Deputy Inspector General, the Office of the Inspector General; and their staff. In January 2008, we observed two of the five influenza pandemic regional workshops led by HHS and DHS, in coordination with other federal agencies. The purpose of the workshops was to obtain state leaders' input on guidance to assist their governments in updating their pandemic plans in preparation for a second HHS-led review of these plans.

In addition, we reviewed prior GAO work and other relevant literature. We also interviewed officials from the National Governors Association, Association of State and Territorial Health Officials, National Association of County and City Health Officials, and the National Emergency Management Association who are working on issues related to state and local influenza pandemic activities. We obtained information on state and local activities from the state and local auditors in Kansas City, Missouri; Portland, Oregon; and New York state, who as members of the GAO Comptroller General's Domestic Working Group, all participated in a collaborative effort to assess influenza pandemic planning in their jurisdictions.¹

We conducted this performance audit from March 2007 to June 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹City Auditor's Office, City of Kansas City, Missouri, *Performance Audit: Pandemic Flu Preparedness* (October 2007); Office of City Auditor, Portland, Oregon, *Pandemic Flu Planning: City bureaus aware of national plans, A Report from the City Auditor* (March 2007).

Appendix II: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528



**Homeland
Security**

May 27, 2008

Ms. Bernice Steinhardt
Director, Strategic Issues
U.S. Government Accountability Office
441 G St. NW
Washington, D.C. 20548

Dear Ms. Steinhardt:

Thank you for the opportunity to review and provide comments on the Government Accountability Office's (GAO) draft report entitled, *Influenza Pandemic: Federal Agencies Should Continue to Assist States to Address Gaps in Pandemic Planning* (GAO-08-539).

The Department of Homeland Security (DHS) has reviewed the referenced GAO report, and we concur with the recommendation that "the Secretaries of Health and Human Services and Homeland Security, in coordination with other federal agencies, convene additional meetings of the states in the five federal influenza pandemic regions to help them address identified gaps in their planning."

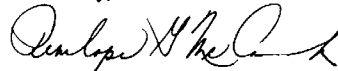
We would like to emphasize that DHS, as part of its efforts to continue to help states and localities in the five federal influenza pandemic regions, is currently seeking input from its security partners on issues in the National Infrastructure Protection Plan (NIPP) that need to be updated as part of the NIPP triennial review process. DHS is also developing guidance to states and localities on developing their critical infrastructure and key resources protection plans and ensuring that they are in line with the NIPP.

We would also like to highlight a recently completed study, "National Population Economic and Infrastructure Impacts of Pandemic Influenza with Strategic Recommendations," developed by the National Infrastructure Simulation and Analysis Center (NISAC) that could further inform all ongoing discussions or workshops between federal, state, and local health officials.

This study was tasked to the NISAC by the 2006 National Strategy for Pandemic Implementation Plan, and will soon be releasable to private sector entities as well as to all governmental levels. The report contains specific recommendations addressing areas of concern identified by the aforementioned GAO draft report, such as when to close schools, disease containment strategies applicable to specific infrastructure sectors, and other perceived gaps in existing Federal guidance. The NISAC study has been briefed and provided to the appointed federal Pandemic Influenza Principal Officials and regional Senior Federal Officials as For Official Use Only (FOUO). Because of the wide applicability of the recommendations contained in the NISAC report, it is in the final stages of being made available for unrestricted release.

DHS is dedicated to assisting our state and local partners in maintaining the health and resiliency of the homeland. Thank you for the opportunity to review and provide comments on this draft report.

Sincerely,



Penelope G. McCormack
Acting Director
Departmental GAO/OIG Liaison Office

Related GAO Products

Emergency Preparedness: States Are Planning for Medical Surge, but Could Benefit from Shared Guidance for Allocating Scarce Medical Resources. [GAO-08-668](#). Washington, D.C.: June 13, 2008.

Influenza Pandemic: Efforts Under Way to Address Constraints on Using Antivirals and Vaccines to Forestall a Pandemic. [GAO-08-92](#). Washington, D.C.: December 21, 2007.

Influenza Pandemic: Opportunities Exist to Address Critical Infrastructure Protection Challenges That Require Federal and Private Sector Coordination. [GAO-08-36](#). Washington, D.C.: October 31, 2007.

Influenza Vaccine: Issues Related to Production, Distribution, and Public Health Messages. [GAO-08-27](#). Washington, D.C.: October 31, 2007.

Influenza Pandemic: Further Efforts Are Needed to Ensure Clearer Federal Leadership Roles and an Effective National Strategy. [GAO-07-781](#). Washington, D.C.: August 14, 2007.

Homeland Security: Observations on DHS and FEMA Efforts to Prepare for and Respond to Major and Catastrophic Disasters and Address Related Recommendations and Legislation. [GAO-07-1142T](#). Washington, D.C.: July 31, 2007.

The Federal Workforce: Additional Steps Needed to Take Advantage of Federal Executive Boards' Ability to Contribute to Emergency Operations. [GAO-07-515](#). Washington, D.C.: May 4, 2007.

Financial Market Preparedness: Significant Progress Has Been Made, but Pandemic Planning and Other Challenges Remain. [GAO-07-399](#). Washington, D.C.: March 29, 2007.

Public Health and Hospital Emergency Preparedness Programs: Evolution of Performance Measurement Systems to Measure Progress. [GAO-07-485R](#). Washington, D.C.: March 23, 2007.

Homeland Security: Preparing for and Responding to Disasters. [GAO-07-395T](#). Washington, D.C.: March 9, 2007.

Catastrophic Disasters: Enhanced Leadership, Capabilities, and Accountability Controls Will Improve the Effectiveness of the Nation's Preparedness, Response, and Recovery System. [GAO-06-618](#). Washington, D.C.: September 6, 2006.

Hurricane Katrina: GAO's Preliminary Observations Regarding Preparedness, Response, and Recovery. [GAO-06-442T](#). Washington, D.C.: March 8, 2006.

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Statement by Comptroller General David M. Walker on GAO's Preliminary Observations Regarding Preparedness and Response to Hurricanes Katrina and Rita. [GAO-06-365R](#). Washington, D.C.: February 1, 2006.

Influenza Pandemic: Applying Lessons Learned from the 2004-05 Influenza Vaccine Shortage. [GAO-06-221T](#). Washington, D.C.: November 4, 2005.

Influenza Vaccine: Shortages in 2004-05 Season Underscore Need for Better Preparation. [GAO-05-984](#). Washington, D.C.: September 30, 2005.

Influenza Pandemic: Challenges in Preparedness and Response. [GAO-05-863T](#). Washington, D.C.: June 30, 2005.

Flu Vaccine: Recent Supply Shortages Underscore Ongoing Challenges. [GAO-05-177T](#). Washington, D.C.: November 18, 2004.

Emerging Infectious Diseases: Review of State and Federal Disease Surveillance Efforts. [GAO-04-877](#). Washington, D.C.: September 30, 2004.

Infectious Disease Preparedness: Federal Challenges in Responding to Influenza Outbreaks. [GAO-04-1100T](#). Washington, D.C.: September 28, 2004.

Public Health Preparedness: Response Capacity Improving, but Much Remains to Be Accomplished. [GAO-04-458T](#). Washington, D.C.: February 12, 2004.

Hospital Preparedness: Most Urban Hospitals Have Emergency Plans but Lack Certain Capacities for Bioterrorism Response. [GAO-03-924](#). Washington, D.C.: August 6, 2003.

Related GAO Products

Infectious Disease Outbreaks: Bioterrorism Preparedness Efforts Have Improved Public Health Response Capacity, but Gaps Remain. [GAO-03-654T](#). Washington, D.C.: April 9, 2003.

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