South Carolina Prepares: Pandemic Influenza

An Assessment of Readiness and Plan for Improvement

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South Carolina Department of Health and Environmental Control
Office of Public Health Preparedness
2600 Bull Street
Columbia, South Carolina 29201

Max Learner, Ph.D., Director, Office of Public Health Preparedness
Phyllis Beasley, Pandemic Influenza Coordinator

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Executive Summary

"The pandemic clock is ticking, we just don't know what time it is."
-Dr. Edgar Marcuse of the University of Washington School of Medicine.

Experts at the World Health Organization (WHO) and Centers for Disease Control and Prevention believe that the world is now closer to another influenza pandemic than at any time since 1968, when the last of the previous century's three pandemics occurred. Historically, about every 30 years, or three times a century, an outbreak of influenza occurs with a new virus that results in rapid worldwide spread of the disease, causing a pandemic.

Planning for a pandemic requires that South Carolina's communities prepare to be self sufficient, to identify and use local resources to last throughout many weeks of the spread of the disease. In a pandemic, all areas of the country will be affected by the pandemic at the same time. There will be few federal resources on which to count and it is estimated that approximately 30%, or over 1,200,000 of South Carolina's citizens would be stricken.

In 1999, shortly after the first reports of human cases of a highly pathogenic strain of avian influenza in Hong Kong, South Carolina began developing a draft response plan for pandemic influenza. The state emergency operations plan for pandemic influenza was published in November 2004. In November 2005, the national pandemic influenza plan was released and preparedness efforts have intensified across the country. In South Carolina, state and local planning summits have been held to draw attention to the critical and comprehensive preparedness plans needed for a pandemic. Regional and county pandemic influenza plans have been drafted and exercised. Assessments of state and local capabilities for response have been conducted.

South Carolina Department of Health and Environmental Control (SCDHEC) staff have presented educational programs and have begun a media campaign to educate partner organizations and the general public about the effects of a pandemic, how to minimize its effects and how to plan for it. SCDHEC is working with many healthcare partners to prepare for the surge in medical care needs that can be expected in a pandemic and to identify additional medical resources and alternate health care sites to cope with the huge swell of hospitalizations and persons seeking medical attention during a pandemic. The state is stockpiling antiviral medications, personal protective equipment, infection control supplies, medical supplies and equipment for use in a pandemic. Influenza surveillance and monitoring, activities are being stepped up.

Non-recurring federal funding has been used to boost state planning efforts. This federal funding has supported the surveillance, stockpiling, planning, exercising and education efforts. During 2006-2007, SCDHEC pandemic preparedness efforts will continue to focus on planning, providing information to the public and planning partners, preparing to implement medical and social measures to minimize the effects of a pandemic, and stockpiling antiviral medications and medical equipment.

Assessment of South Carolina's Ability to Cope with a Major Influenza Outbreak

The Threat of Pandemic Influenza

Each season, the "normal" flu affects the population in varying degrees of severity. Most of the fatalities from illness during the normal flu season are among the very old, the very young, people with chronic diseases and those with compromised immune systems. Historically, about every 30 years, or three times a century, an outbreak of influenza occurs with a virus that is new to the human immune system, resulting in the rapid worldwide spread of the disease and causing, by definition, a pandemic. In about one-third of these outbreaks (or once a century), a virus emerges which is particularly virulent, particularly contagious, and particularly lethal, such as the "Spanish Flu of 1918."

During the 20th Century, the world experienced three influenza pandemics. The flu outbreaks of 1957 and 1968 (Asian Flu and Hong Kong Flu, respectively) were minor pandemics that killed tens of thousands of Americans, and millions across the globe. However the Spanish Flu of 1918 killed 550,000 Americans and approximately 100 million people worldwide in less than eight months.

Experts at the World Health Organization (WHO) and Centers for Disease Control and Prevention believe that the world is now closer to another influenza pandemic than at any time since 1968, when the last of the previous century's three pandemics occurred. WHO uses a series of six phases of pandemic alert as a system for informing the world of the seriousness of the threat and of the need to launch progressively more intense preparedness activities. Each phase of alert coincides with a series of recommended activities to be undertaken by WHO, the international community, governments, and industry. Changes from one phase to another are triggered by several factors, which include the epidemiological behavior of the disease and the characteristics of circulating viruses. The world is presently in phase 3: a new influenza virus subtype is causing disease in humans, but is not yet spreading efficiently and sustainably among humans.

What Might a Pandemic Look Like in South Carolina?

An influenza pandemic affects between 30% and 50% of the population. If 30% of South Carolina's population were stricken by a pandemic, 1,200,000 would seek medical assistance and up to 17,000 would need hospital care. There could be from 2,000 to 5,000 deaths, and the effects of a pandemic would last six weeks or more in a community.

What would this mean to our state?

Our already overburdened healthcare system would not be able to handle the enormous influx of people seeking medical care and needing hospitalization. Hospitals would not have enough beds, ventilators, or other medical supplies to care for the ill. This drain on the healthcare system would be compounded by physicians, nurses and other hospital staff being stricken with the illness, or staying at home to care for loved ones who are ill.

The federal government has estimated that 40% of staff within government entities and private sectors may be absent from work for about two weeks during the height of a pandemic. Employees may be out of work because they are sick, caring for sick family members or for children who are out of school, or they may be under quarantine. Consider the implications of this rate of absenteeism on the ability of businesses and governmental entities, such as public works and fire/police/emergency medical services to continue to provide essential services. Absenteeism may affect public utilities such as water and electricity, medical care and public health services, education, and care for special needs populations. Food supply (as well as other goods) may be affected due to the unavailability of truck drivers to drive for one to two weeks.

In a pandemic, it may become necessary for local governments to close schools to prevent the spread of the disease. Depending on the nature of the pandemic, school closures might last for several weeks. If this measure is taken, then day care centers must also close in order to contain the disease. Employees will need to stay home to care for their children. Other steps to contain the spread of the disease might include canceling public events such as football games or concerts, closing public recreation facilities, closing office buildings and shopping centers. Travel may be restricted.

Because of the highly contagious nature of a pandemic, churches may need to provide other means than normal church services to provide spiritual guidance to their congregations. Prevention of the close gathering of large groups of people will be one way that the state may attempt to contain the disease. The large numbers of deaths will present special challenges to the churches and to the state's coroners and funeral homes.

The Current Situation

In accordance with the World Health Organization's status of Phase 3 (a new influenza virus subtype is causing disease in humans, but is not yet spreading efficiently and sustainably among humans), SCDHEC continues to prepare for a pandemic by planning for public health response and by working with and assisting other agencies and businesses in their planning efforts.

It is recognized that, in a pandemic, resources in all states will be taxed and South Carolina can not count on support from the outside. Therefore, a focus of current planning activities has been on supporting local efforts to coordinate and identify resources. Non-recurring funding that has been received from the federal government to support pandemic planning requires that the majority of funds be spent to support

regional and county planning. Regional SCDHEC public health preparedness directors, in concert with local emergency management agencies, have hosted pandemic summits, planning meetings and tabletop exercises to test county plans. These are just the first steps. Local planners, representing a cross section of governments, health care entities and businesses, are still working to identify local resources, such as alternate care sites outside of hospital facilities to care for large numbers of sick persons. Many educational programs have been presented locally, and to state level organizations, to provide information about avian influenza and the potential effects of a pandemic, as well as planning for continuity of operations within businesses, schools and health care agencies. Community outreach activities attempt to involve every sector in the planning process.

SCDHEC is encouraging , the monitoring, or surveillance, of seasonal influenza by the healthcare providers in the voluntary influenza surveillance network, to increase surveillance activities, traditionally conducted from October through March, to year round reporting. State laboratory capabilities to identify new influenza viral strains are being increased. SCDHEC's epidemiology staff is developing recommendations for personal protective equipment (PPE) for health care workers, public health staff and the general public. SCDHEC is working with state school officials to determine pandemic events that would trigger the recommendations for school closings.

The State Pandemic Influenza Plan and Antiviral Distribution Plan are being updated, based on the latest planning efforts. SCDHEC regional and county pandemic plans also continue to be updated to include the results of local planning meetings and tabletop exercises. Stockpiles of antiviral medicines are being purchased by the state and federal government.

What Has Been Done to Prepare

In November 2005, the State Bioterrorism Advisory Committee was briefed on the newly released National Pandemic Influenza Plan and expanded to form the state Pandemic Influenza Coordinating Council. Sub-committees on Disease Control, Mass Casualty Planning, Training and Agroterrorism were tasked with specific pandemic preparedness activities. From discussions of the state Pandemic Influenza Coordinating Council, four main strategies were identified for the first phase of improving preparedness for local communities. These are:

1. Regional and local planning summits with follow-on planning meetings to complete local community plans for the counties and major cities and exercise these plans;
2. Regional and local information-sharing meetings and community forums to promote awareness and preparedness in each of the following sectors: local government (counties and cities), education, business and agriculture, health care, faith-based organizations, community organizations, individuals and families.

3. A multi-media public awareness and preparedness campaign to inform and educate people about pandemic influenza prevention and preparedness measures and to alert the public and community leaders of the need to prepare local government and community plans;
4. Targeted multi-media campaigns and technical assistance to promote awareness and preparedness in each of the following sectors: local government (counties and major cities in metropolitan statistical areas), education, business and agriculture, health care, faith-based organizations, community organizations, individuals and families.

Based on public health and hospital preparedness efforts and the findings from the state and regional assessments conducted in April 2006, and repeated in August 2006, three additional strategies include:

5. Establishment of state stockpiles of antiviral medication, personal protective equipment, infection control supplies, medical supplies and equipment for use in a pandemic or other public health emergency. Detailed planning for the efficient distribution of medicines and supplies from state and federal stockpiles.

6. Detailed planning for increasing the capacity of hospitals and medical care to care for a surge in the number of patients by use of alternate care sites and mobile medical resources. Establishment of a health professional volunteer registration system and medical reserve corps program to supplement health care manpower.

7. Expansion of disease surveillance activities and laboratory testing capacity for influenza-like illnesses.

A state Pandemic Summit was held on March 2, 2006. Governor Sanford signed a joint proclamation with Secretary Michael Leavitt of the US Department of Health and Human Services to work together on pandemic preparedness efforts.

In May 2006, SCDHEC received approval of its Phase I Pandemic Influenza application and received $1.5 million in one-time federal funding to support pandemic influenza planning and exercises. Major activities underway include:

- Pandemic influenza emergency operations plans have been written in 45 counties.

- Pandemic summit meetings have been held in all eight public health regions, 45 counties and three cities.

- A total of 45 county exercises and four state level exercises have been held to test and refine pandemic emergency operations plans.

- The state Pandemic Influenza plan has been updated for the 2007 State Emergency Operations Plan.

- A state Public Health Emergency Pharmaceutical Stockpile has been established. Under a federal match program, South Carolina has ordered 325,000 treatment courses of antiviral medicines for influenza, at a total cost of $6.6 million (of which $5 million is state matching funds). The state may purchase up to 435,000 courses under this program, and, if funded, South Carolina will purchase its full allotment. The first shipments of the stockpile medicines are expected to arrive in early 2007.

- An additional 25,000 antiviral treatment courses have been ordered with federal funding for public health response to contain an initial outbreak of pandemic influenza. These medicines are expected to arrive in December 2006.

- In addition, the federal Strategic National Stockpile has allocated 618,000 treatment courses for South Carolina. When the federal allocation and the state stockpile are combined, there will be a sufficient supply to treat up to 25% of the state's population for pandemic influenza.

- Each year, SCDHEC conducts disease surveillance for influenza and influenza-like illnesses. http://www.scdhec.gov/health/disease/acute/flu.htm Disease surveillance activities for influenza-like illness have been stepped up by recruiting additional providers to report.

- Laboratory testing capabilities and capacity have been increased. Laboratory testing is used to confirm the types of influenza circulating and to look for the emergence of novel viruses.

- DHEC maintains a Health Alert Network to quickly provide alerts and detailed information to health care providers about disease outbreaks or important health problems, including influenza.
  http://www.scdhec.gov/health/disease/acute/flualert.htm

- The South Carolina seasonal influenza plan is available at:
  http://www.scdhec.gov/health/disease/immunization/docs/fluplan.pdf
  This plan describes public health activities to prevent and monitor influenza.

- Each year, SCDHEC has a seasonal influenza vaccination campaign to encourage people in high risk groups to get flu shots. The risk for complications, hospitalizations, and deaths from influenza are greater among persons 65 and older, young children, and people with certain chronic diseases including diabetes, asthma and heart disease.

- Pandemic preparedness initiatives are underway for specific sectors: business, schools, government agencies, health care, agriculture, and the faith community to promote awareness, planning and preparedness.

- A Speaker's Bureau has been established to promote widespread public awareness of the possibility of pandemic influenza among community and business leaders. Six "train the trainer" sessions were held at the state level to prepare approximately 300 speakers for pandemic influenza presentations. From September 2005 through September 2006, there were 296 presentations to over 10,440 people.

- The public information campaign, "What Do You Do to Prevent the Flu?" has been developed and began airing on television and radio in October 2006. The purpose is to increase public awareness and knowledge of ways they can prevent the spread of seasonal influenza. The messages promote vaccination, hand washing, cough etiquette, and staying home when sick. These are key messages for seasonal influenza, but are also important messages for a pandemic influenza.

- A contract with South Carolina Educational Television supports the development of educational materials about pandemic influenza and home care, and other key media materials for use now, and in the event of a pandemic.

What More Should Be Done

- **Recurring state funding is needed to support the Public Health Emergency Pharmaceutical Stockpile.** A secure storage area must be built, with the capacity to serve as a receiving and distribution site for the federal Strategic National Stockpile. Ongoing funding is needed to purchase medicines, vaccines and infection control supplies, rotate stock when medicines and vaccines expire, and operate the stockpile facility. The stockpile represents an ongoing program to assure that South Carolina has resources on hand to treat its citizens in the event of a pandemic influenza or other major disease outbreak.

- **The state must be prepared to purchase large quantities of influenza vaccine and to quickly vaccinate large numbers of people.** Human vaccines are being developed for protection against the H5N1 avian influenza virus. At this time, these vaccines are in early development, and are not being manufactured in quantities sufficient for widespread use. Unfortunately, a specific vaccine for a pandemic influenza strain cannot be developed until after the pandemic strain emerges: it might be a different type of influenza than H5N1. In any case, when a vaccine to prevent pandemic influenza is available, South Carolina must be ready to buy it and use it.

- **The public health workforce available to respond to a pandemic or other public health emergency is far smaller now than in 2001.** State and federal budget reductions have resulted in the reduction from 5,729 authorized FTEs in FY 2001-02 to 4,921 in FY 2006-07, a loss of 14% of the Department's total workforce. Increased state funding for public health programs is essential, if the state is to have sufficient public health professionals available to respond to a public health emergency.

- **Reductions in federal funding for public health preparedness are causing instability in the Department's preparedness efforts.** Federal funding for the Centers for Disease Control Public Health Emergency Preparedness program has dropped from $13.9 million in FY 2002-03 to $10.6 in FY 2006-07, a loss of 24% in four years. The program is presently undergoing staffing reductions. One-time federal funding for pandemic influenza preparedness is used to support temporary grant employees for planning and public awareness activities. It cannot be used to sustain public health capacity to respond to an unpredictable event like a pandemic. Sustained, recurring state funding is needed for public health preparedness efforts.

- **The state should consider increased funding for its disaster reserve fund.** An influenza pandemic could result in a major financial crisis for hospitals and health care providers caring for a surge of uninsured or under-insured patients. Impacts on the state's economy, on state agencies and on the educational system may result in reduction of state revenues at a time of increased expenditures. A well-funded state disaster reserve fund would be a prudent measure for coping with unexpected expenses or revenue reductions during a pandemic or other disaster.

The Plan to Improve the State's Readiness Condition

Key objectives in South Carolina's work plans for the Pandemic Influenza, hospital and public health preparedness programs include:

- Improving plans for mass vaccination to prevent the spread of influenza and for distribution of medicines to treat pandemic influenza.

- Planning and preparedness measures for surge capacity and staffing issues for hospitals, primary care and home health care.

- Improving infection control practices, plans and procedures in public health and medical care systems.

- Planning for and developing caches of medicines, vaccines, medical supplies and equipment for use in a pandemic.

- Improving influenza surveillance and information systems for disease reporting, tracking, and disease control response.

- Improving laboratory capacity for influenza testing.

- Promoting registration and training of volunteer health professionals to serve in emergencies.

- Testing plans for use of alternate care sites for medical care of influenza patients.
- Preparing guidelines for school closure and other community disease containment measures and informing the public about isolation, quarantine and disease control measures.
- Raising public awareness of influenza prevention measures and providing information on home care for influenza patients.
- Defining and addressing the needs of high risk and special populations.
- Formalizing interstate mutual assistance agreements and coordination among southeastern states.
- Exercising state and regional pandemic influenza emergency plans to identify and fix gaps.
- Engaging law enforcement personnel in planning and training for response to pandemic influenza.
- Improving plans for responding to mass fatalities.
- Preparing for the psychological consequences of a pandemic that causes widespread illness and mass fatalities.

Conclusion

Significant progress has been made in planning for an influenza pandemic in South Carolina, but much work remains to be done to improve the state's readiness condition. The focus of preparedness efforts during the next year will be on promoting pandemic preparedness planning in the health and medical, business, agriculture, education, and faith community sectors; promoting individual and family awareness of influenza prevention, home care, and preparedness; establishing the state public health emergency pharmaceutical stockpile; strengthening public health disease surveillance and response capabilities; and strengthening medical surge capacity.

The threat of an influenza pandemic is real. There is great uncertainty about when the next pandemic will occur, how serious the disease will be, and how effective the measures to contain the disease will be. Our challenge is to prepare for the worst case and take prudent measures now to protect the health of South Carolinians.

Chronology of Key Events in the H5N1 Avian Influenza Outbreak (from World Health Organization), National Pandemic Influenza Preparedness, and South Carolina's Pandemic Influenza Preparedness	
1997	Outbreaks of highly pathogenic H5N1 avian influenza are reported in poultry at farms and live markets in Hong Kong. Human infections with H5N1 influenza are reported in Hong Kong. Altogether, 18 cases, 6 of them fatal, are reported in this first known instance of human infection with this virus.
April 2000	**SC DHEC prepares a draft response plan for pandemic influenza.**
May 2002	**South Carolina begins major expansion of public health preparedness activities under Centers for Disease Control "Public Health Preparedness and Response for Bioterrorism Program" and Health Resources and Services Administration "Bioterrorism Hospital Preparedness Program."**
February 2003	Two cases of H5N1 in a Hong Kong family, one fatal. A third family member died of respiratory illness, but no samples were taken.
Mid 2003	Animal outbreaks of H5N1 occur in Asia, but go unreported.
July 2003	**DHEC hires an epidemiologist to oversee increased disease surveillance for influenza and respiratory illnesses.**
December 2003	Outbreak in poultry is reported in South Korea.
January 2004	Viet Nam reports H5N1 in poultry. Sporadic human cases of H5N1 are reported, with severe respiratory disease and high fatality rates. Outbreaks in poultry are reported by Japan, Thailand, Cambodia and Laos.
February 2004	Outbreaks in poultry are reported by Indonesia and China.
March 2004	Reports of human cases continue. Confirmed cases include 12 in Thailand, with 8 fatal; and 23 in Viet Nam, 16 fatal.

Fall 2004	Human cases are reported from Viet Nam, Thailand
November 2004	**Pandemic Influenza Plan is officially included in South Carolina State Emergency Operations Plan**
January 2005	Human cases in Viet Nam, Thailand.
February 2005	First human case in Cambodia.
April 2005	Die-off of wild birds at Qinghai Lake in central China.
July 2005	First human case reported in Indonesia. Avian outbreaks in Russia
August 2005	Avian outbreaks in Kazakstan, Tibet, Mongolia.
October 2005	Avian outbreaks in Turkey, Romania, Croatia, China. More human cases confirmed in Indonesia and Thailand.
October 2005	CDC announces successful research to reconstruct the 1918 pandemic influenza virus, concludes that the virus was avain in origin and has some similarities to the H5N1 strain.
November 2005	US Department of Health and Human Services releases National Pandemic Influenza Plan. President Bush announces National Strategy for Pandemic Influenza. China reports first two human cases of H5N1. **South Carolina expands the State Bioterrorism Advisory Committee to serve as the state's Pandemic Influenza Coordinating Council.**
December 2005	National summit meeting of state health officers was held to announce national campaign to prepare for pandemic influenza. US Department of Health and Human Services Secretary announces a fifty-state tour of pandemic influenza summit meetings to increase state preparedness efforts.
January 2006	Turkey and Iraq report first human cases. Poultry outbreaks occur in Turkey.

February 2006	Indonesia continues to report human cases: 25 cases and 18 fatalities. China reports 12 human cases and 8th fatality. H5N1 is confirmed in wild birds in Azerbaijan, Bulgaria, Greece, Italy, Iran, Austria, Germany, France, Hungary, Slovakia, Bosnia-Herzegovina and Georgia and in poultry in Iraq, Nigeria, Russia, Egypt, India, Malasia, France and Niger.
March 2006	First human cases are reported in Azerbaijan and Egypt. H5N1 is confirmed in wild birds in Switzerland, Montenegro, Poland, Denmark, Sweden and the Czech republicand in poultry in Albania, Cameroon, Myanmar, Afganistan, Israel, Pakistan, and Jordan.
March 2006	**South Carolina holds "South Carolina Prepares: Pandemic Influenza State Summit" meeting. Governor Sanford signs proclamation to work with DHHS to prepare for pandemic influenza in South Carolina.**
May 2006	**South Carolina receives Phase I Pandemic Influenza supplemental funds of $1.5 million for planning, exercises and preparedness initiatives.**
May 2006	US Department of Homeland Security releases National Strategy for Pandemic Influenza: Implementation Plan that describes the roles of federal agencies in response to pandemic influenza.

May-October 2006	Human cases of H5N1 influenza continue to occur on a sporadic basis in Indonesia, Egypt, China, Thailand. As of October 16, 2006, World Health Organization reported 256 cases and 151 deaths from 2003 to date. The disease is not yet easily transmitted from person to person. Avian disease continues to be widespread in Asia, Europe and Africa in wild birds, with sporadic outbreaks in domestic poultry. It has not yet reached North America or South America. Extensive monitoring of wildlife and commercial poultry is conducted in the US and Canada to detect H5N1.
June – October 2006	**South Carolina holds regional and county summits to develop county and city pandemic influenza plans and hold exercises. Numerous presentations are made at meetings and conferences to promote planning and preparedness by government agencies, business, schools and faith communities.**
July 2006	**South Carolina sends a letter of intent to participate in the federal match program for purchase of antiviral medicines for a state stockpile.**
August 2006	**Phase II Pandemic Influenza grant proposal submitted to Centers for Disease Control. When approved, South Carolina will receive $3,277,094 for planning, exercises and other pandemic influenza preparedness activities.**

September 2006	**Initial orders are placed for antiviral medicines for South Carolina state stockpile. 325,000 treatment courses were ordered, with anticipated delivery by March 2007.** **Multiple state and federal agencies in South Carolina-Clemson University, Department of Natural Resources, South Carolina Department of Agriculture, US Department of Agriculture Wildlife Services and Veterinary Services and SCDHEC announce increased surveillance for avian influenza in wild birds and domestic flocks.**
October 2006	**The "What Do You Do To Prevent the Flu?" public information campaign was launched at the South Carolina State Fair. Brochures and public service announcements on television and radio promote vaccination, hand washing, cough etiquette and staying home when sick as ways to prevent the spread of seasonal flu. These and additional materials will be used for public information in a pandemic situation.**

Attachments: Sections from South Carolina's Application for Federal Funding through the Centers for Disease Control and Prevention Phase I and Phase II Pandemic Influenza Cooperative Agreements

PUBLIC HEALTH EMERGENCY PREPAREDNESS SUPPLEMENT
PANDEMIC INFLUENZA PREPAREDNESS COOPERATIVE AGREEMENT
AA154, CFDA 93.283

SOUTH CAROLINA PROGRAM NARRATIVE
PHS 5161-1: 6. [c] SUPPLEMENTAL REQUEST

1. EXECUTIVE SUMMARY: Influenza Pandemic Preparedness Planning in South Carolina

South Carolina has a state-level pandemic influenza preparedness plan. The current pandemic preparedness plan was incorporated in the South Carolina Emergency Operations Plan in November 2004. The next update of the State Emergency Operations Plan will be distributed in April 2006 and will incorporate a slight change to identify pandemic phases in terms consistent with the US Department of Health and Human Services plan and the World Health Organization pandemic preparedness documents. The state-level pandemic plan was tested in a series of tabletop exercises sponsored by Emergency Management Division in February 2006. Representatives from each of the State Emergency Response Team Emergency Support Functions participated in the series of three tabletop exercises. Additional roles and tasks have been identified for many of the state agencies. The After-action Report for the series of exercises is being compiled by Emergency Management Division and will be distributed in April 2006.

State-level Emergency Operations Plans in South Carolina are coordinated through South Carolina Emergency Management Division. Emergency Management Division organizes its operations under an Emergency Support Function structure and maintains all-hazards planning as a foundation for emergency operations planning. As a result, most pertinent information regarding a public health response to any disaster can be found in Annex 8, Health and Medical of the State Emergency Operations Plan. Additionally, there is a State Mass Casualty Plan that is Attachment H, Annex 25 of the State Emergency Operations Plan. The State Mass Casualty Plan covers the state government response to any incident that generates a significant number of casualties. Supporting tabs for the State Mass Casualty Plan include: Strategic National Stockpile, CHEMPACK, Pandemic Influenza, and Smallpox.

Health and Medical response as outlined in Annex 8 includes four broad categories of public health support: Medical Care, Public Health and Sanitation, Behavioral Health, and Deceased Identification and Mortuary Services. Each of those functions will have a role in response to an Influenza pandemic. Medical Care refers to emergency medical services (including field operations and first responders), resident medical and dental care, doctors, nurses, technicians, pharmaceuticals, supplies, equipment, hospitals, clinics, planning and

operation of facilities, and services. Public Health and Sanitation refers to the services, equipment, and staffing essential to protect the public from communicable diseases and contamination of food and water supplies; development and monitoring of health information; inspection and control of sanitation measures; inspection of individual water supplies; disease vector and epidemic control; immunization; laboratory testing. Behavioral Health, including crisis counseling and psychological first aid, refers to the professional personnel, services, and facilities to relieve mental health and/or substance abuse problems caused or aggravated by a disaster or its aftermath. Deceased Identification and Mortuary Services refers to the identification and disposition of human remains.

The Pandemic Influenza-specific response plan (Tab 2, Attachment H, Annex 25) section of the State Emergency Operations Plan addresses five more general categories of public health response in specific detail. The additional categories are: communication of medical information, disease surveillance, vaccine programs, distribution of medications, public health authority and disease control.

Communication of medical information refers to both the information flow within the public health community and the provision of critical information to the public. Disease surveillance refers to the voluntary and required systematic reporting and analysis of signs, symptoms, and other pertinent indicators of illness to identify disease and characterize its transmission. Vaccine programs refers to acquisition, allocation, distribution, and administration of influenza vaccine, and monitoring the safety and effectiveness of influenza vaccinations. Distribution of medications refers to the acquisition, apportionment, and dispensing of pharmaceuticals (other than vaccines) to lessen the impact of the disease and also to minimize secondary infection. This includes strategies involving both antiviral medications and antibiotics. The plan addresses priority allocation of scarce resources such as vaccines and medicines in accordance with national priorities. Public health authority and disease control refers to the aspects of pandemic response requiring executive decisions such as:

- ordering and enforcing *quarantine*, which is the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious;

- ordering and enforcing *isolation*, which is the separation of persons who have a specific infectious illness from those who are healthy and the restriction of their movement to stop the spread of that illness;

- ordering the release of medical information for epidemiological investigation;

- expanding or lifting regulations and licensure requirements to allow for the expansion of medical services; and

- ordering expansion of medical services under emergency conditions

- issuing other lawful directives in support of the response.

There are eight public health regions in South Carolina. Each of the public health regions with supporting County Health Departments is a part of the South Carolina Department of Health and Environmental Control. As a result of the state-level control of the public health regions, the state-level plan addresses the regional and county-level public health response to influenza pandemic. In order to specifically address regional and county-level issues related to a pandemic response, the regional public health offices have been given a regional pandemic influenza plan template. The regional public health preparedness planners are partnering with county health departments and county emergency management officials in their regions to further define the county-level response to a pandemic.

Both the state-level and region-level plans are supported by Standard Operating Procedures that describe how each of the tasks identified in the plans will be accomplished. The standard operating procedures include documents such as agency policies, organizational charts reflecting the National Incident Management System and Incident Command System requirements, standing orders, and contingency health regulations.

South Carolina's private sector, including hospitals, major utilities and other businesses in the state has been working toward more comprehensive pandemic preparedness through representation on the state Pandemic Influenza Coordinating Committee. The committee is made up of our statewide planning partners that includes representatives from local communities, schools and universities, hospitals and health care providers, not-for-profit organizations, government agencies, National Guard, business, and the Catawba Indian Nation.

In addition to the efforts outlined above, the University of South Carolina's Center for Public Health Preparedness is currently operating the third cohort year of its Academy for Public Health Emergency Preparedness. This cohort year, the Academy has formed regional working groups to enhance critical components of the regional mass casualty plans. Each of the working groups has identified a critical aspect of influenza pandemic preparedness and is developing a more detailed plan to implement that aspect during a pandemic response. For example: one region has chosen advance registration and credentialing of volunteers from the medical profession, and another region has chosen to develop a detailed plan for the organization, function, and staffing of an offsite medical care facility.

Reason for the Request

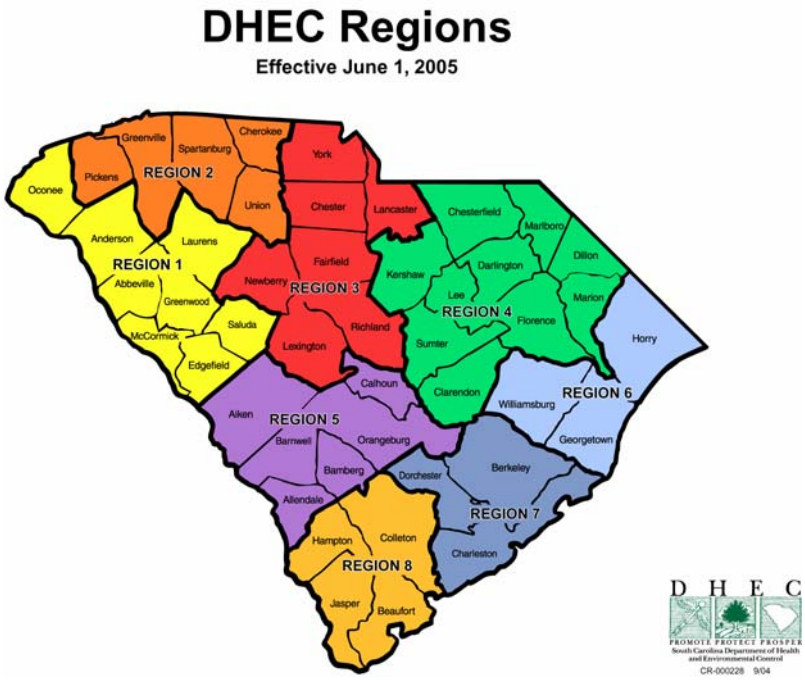
South Carolina requests $1,508, 881 in supplemental funds under the Centers for Disease Control and Prevention Cooperative Agreement for Public Health Emergency Preparedness, funding opportunity AA154, CFDA 93.283 for program operations to prepare for and respond to an influenza pandemic. This one-time emergency supplemental funding is requested because of the increased threat of a global influenza pandemic. Experts at the World Health Organization (WHO) and Centers for Disease Control and Prevention believe that the world is now closer to another influenza pandemic than at any time since 1968, when the last of the previous century's three pandemics occurred. WHO uses a series of six phases of pandemic alert as a system for informing the world of the seriousness of the threat and of

the need to launch progressively more intense preparedness activities. Each phase of alert coincides with a series of recommended activities to be undertaken by WHO, the international community, governments, and industry. Changes from one phase to another are triggered by several factors, which include the epidemiological behavior of the disease and the characteristics of circulating viruses. The world is presently in phase 3: a new influenza virus subtype is causing disease in humans, but is not yet spreading efficiently and sustainably among humans.

The Department of Health and Environmental Control, Office of Public Health Preparedness will be responsible for program management and administration. Program budget and accounting codes will be established to track Emergency Supplemental Pandemic Influenza program funds

Concurrence of Local Health Departments

South Carolina's public health agency is the state Department of Health and Environmental Control. Local health departments are a part of the state agency: all DHEC employees are state employees regardless of their geographic location. Geographically, the Department is organized into eight multi-county regions for public health and environmental services.



Concurrence of regional public health directors has been documented as required for all public health regions, serving 100% of the state's population. The vast majority of the Emergency Supplemental Pandemic Influenza program funds are budgeted for use in the

eight local regions to support regional, county and city, and sector-based planning, preparedness, and exercises at the community level. South Carolina's approach includes providing grant funds to each of the public health regions to achieve specified staffing and operational capabilities and to achieve critical capacities. A total of $954,255, or 63% of the state's pandemic influenza funds, is budgeted directly to the public health regions. In addition, the costs for printing, mailing, and multi-media development and production (a total of $375,000) will support the local initiatives as well. Region directors, administrators and public health preparedness directors participated in a telephone conference call and meetings to provide input to the proposal. Draft workplans and budgets were reviewed by regional management and changes were incorporated into the final application proposal. This planning process has assured that the needs of both the local and state public health entities are met. Concurrence letters are available to support this application.

2. ASSESSMENT OF STATE LEVEL PANDEMIC PREPAREDNESS

State Assessment Process

South Carolina conducted a web-based survey of State Pandemic Coordinating Council members, public health leaders and key preparedness program staff, using the DHHS "State and Local Pandemic Influenza Planning Checklist." A total of 247 individuals were invited to participate, and 46 completed responses were received. These responses formed the basis for the state baseline assessment included as attachment 4a Self-Assessment State. Items rated as "In Progress" or "Not Started" were identified as gaps. Planning discussions with the State Pandemic Influenza Coordinating Council were held in November 2005, January 2006, February 2006, and March 2006. These discussions identified local planning, community awareness and community preparedness as the priority areas that need to be addressed. Tasks were assigned to the four sub-committees of the state Pandemic Influenza Coordinating Council: Disease Control; Mass Casualty Response Planning; Agroterrorism and Food Safety; and Training. Four strategies were identified to address these priority gaps.

In addition to the survey results, the input from discussions of the State Pandemic Influenza Coordinating Council and information from CDC and HRSA progress reports and from key program staff were used to assess progress on the checklist items.

Local public health assessments will be conducted for each of the eight multi-county public health regions in April 2006. Results will be compiled and analyzed by the state headquarters staff, and submitted within the required time frames.

A second state and local assessment will be completed by the end of the project period in August 2006, to assess the progress made.

3. GAP ANALYSIS AND 4. PROPOSED APPROACH

PANDEMIC INFLUENZA SUPPLEMENTAL GAP ANALYSIS RESULTS STATE PUBLIC HEALTH

Instructions:
Using the Gap Analysis Results template below, provide a brief summary of key gap(s) identified in each section of your State Self-Assessment tool. Provide a proposed approach (i.e. work plan overview) that describes how your state plans to fill the identified gaps. In addition, grantees are encouraged to provide responses to the bulleted items in section XII Performance Measures.

Approach and Justification of the Need for Additional Funding

South Carolina proposes the following approach and work plan to accomplish the CDC "Goals for Pandemic Influenza Preparedness," meet the recipient requirements, and perform the seven identified critical tasks. These are essential elements in public health emergency preparedness for a pandemic influenza outbreak. During the project period, four main strategies will be used to initiate and catalyze the development and exercising of pandemic influenza preparedness plans for local communities. These are:

1. Regional and local planning summits with follow-on planning meetings to complete local community plans for the counties and major cities and exercise these plans;
2. Region and local information-sharing meetings and community forums to promote awareness and preparedness in each of the following sectors: local government (counties and major cities in metropolitan statistical areas), education, business and agriculture, health care, faith-based organizations, community organizations, individuals and families.
3. A multi-media public awareness and preparedness campaign to inform and educate people about pandemic influenza prevention and preparedness measures and to alert the public and community leaders of the need to prepare local government and community plans;
4. Targeted multi-media campaigns and technical assistance to promote awareness and preparedness in each of the following sectors: local government (counties and major cities in metropolitan statistical areas), education, business and agriculture, health care, faith-based organizations, community organizations, individuals and families.

The detailed budget associated with the workplan is presented on the Grant Budget Application spreadsheet.

Section I:

Community Preparedness Leadership and Networking [Preparedness Goal 1—Increase the use and development of interventions known to prevent human illness from chemical, biological, radiological agents, and naturally occurring health threats.

Summary of Key Gap(s):

- Need for detailed, specific pandemic influenza response plans at the state and local levels
- Need for formal agreements with neighboring states, Indian Nations and southeast regional states
- Need to develop demographic profiles of communities
- Need to refine and test communication operational plan
- Need for community-level task forces that support health care institutions
- Need more detailed operational planning with animal health sectors

Proposed Approach(s):

State Pandemic Coordinating Council

South Carolina formed a State Pandemic Influenza Coordinating Council on November 18, 2005, with membership drawn from the State Bioterrorism Advisory Committee that was formed in November 2002. Members are familiar with influenza issues, as the Advisory Committee has been closely monitoring the avian influenza situation since 2004. Sub-committees are addressing key issues in pandemic influenza prevention and response. The sub-committees include: Mass Casualty Planning (responsible for overseeing state and regional mass casualty plans and preparedness measures), Training and Education (responsible for coordinating preparedness training programs statewide); Agroterrorism and Food Safety (responsible for emergency planning and coordination of preparedness measures related to agriculture, animal health and food safety), and Disease Control (responsible for disease control preparedness for pandemic influenza).

The State Pandemic Influenza Coordinating Council met in November 2005, January 2006, February 2006, and March 2006. It was responsible for planning the State Pandemic Influenza Summit, "SC Prepares: Pandemic Influenza," held on March 2, 2006. Significant input has been received from the Council in the planning process and the initial assessment for this pandemic influenza grant proposal.

Activities

1. Continue to hold meetings on a regular basis to guide development and implementation of pandemic influenza preparedness plans and measures.
2. Expand membership by inviting representatives from all identified stakeholder groups.
3. Improve participation in Council meetings by increasing publicity regarding the Council and its work.

4. Agroterrorism and Food Safety sub-committee of the Pandemic Influenza Coordinating Council is tasked with working on planning and public information issues related to animal health.
5. Mass Casualty Response Plan sub-committee of the Pandemic Influenza Coordinating Council is tasked with refinement of pandemic influenza planning templates for regional and local planning and oversight of plan integration.
6. The Disease Control Sub-committee of the State Pandemic Influenza Coordinating Council will study critical risk factors, epidemiologic data, public health interventions, and clinical management practices for pandemic influenza and will make recommendations for appropriate action.

Planning

South Carolina will continue to use the State Emergency Operations Plan as the overall planning framework. All state and county emergency operations plans use this framework which is NIMS compliant and well-integrated with the National Response Plan.

South Carolina cooperates closely with public health officials in the bordering states of North Carolina and Georgia on many aspects of emergency preparedness. Existing inter-state and regional mutual aid agreements will be reviewed and updated, and new agreements negotiated as necessary to address the contingency of a pandemic influenza outbreak. In addition, the Department collaborates closely with the National Guard, Veteran's Administration and US Military installations on emergency preparedness planning and response. Issues related to pandemic influenza will be coordinated with these partners.

State, region, county and major city emergency plans for pandemic influenza will be developed, updated, and improved. To achieve this objective, existing regional mass casualty plans for the eight multi-county public health areas will be updated to include improved pandemic influenza response plans. The regional planning committees are already comprised of key leaders in emergency management, health care, public health, law enforcement, and other organizations. These groups will be expanded to include broader representation and a series of planning summits and meetings will be held in each region to complete planning templates for each multi-county region, each county, and each major city in a metropolitan statistical area. This will assure that all major sectors are included in the regional and local community-wide planning processes. When regional and local plans are developed and improved through exercises including workshops, tabletops, drills and/or functional exercises, the focus will shift more intensely to informing the public about pandemic influenza and preparedness measures, and promoting planning by individuals, families and organizations through targeted information campaigns. Personnel and operating costs for pandemic influenza staff to perform these tasks include $210,333 for salaries; $67,307 for fringe; $9,698 for travel; $84,000 for computer equipment; and $3,800 for office supplies. Also, $594,010 is budgeted for the expenses associated with holding pandemic influenza summits, planning meetings, community meetings and other expenses associated with the planning, community awareness and preparedness activities.

Catawba Indian Nation: South Carolina has a contract under the HRSA Bioterrorism Hospital Preparedness program with the Catawba tribe for preparedness planning activities. This will be amended, to provide an additional $1,500 for pandemic influenza planning, awareness and preparedness measures. Concurrence with the Catawba Indian Nation has been documented in correspondence with the Executive Committee for Catawba Indian Nation and Public Works Coordinator. The tribe has been an active participant in the State Pandemic Influenza Coordinating Council, and will be engaged in pandemic influenza preparedness activities. In addition, the program plans extensive community outreach through organizations able to reach diverse segments of the population, including vulnerable and hard-to-reach populations, African-American, Hispanic, and members of other Indian tribes.

Activities

1. Hire additional DHEC regional staff (Program Coordinator II positions or equivalent) to support community pandemic influenza planning, awareness and preparedness efforts The sixteen regional pandemic influenza public health staff will work under the direction of Regional Public Health Preparedness Directors.
2. Hire two Pandemic Influenza Program Coordinators, one in the state Office of Public Health Preparedness and one in Health Services Management, to coordinate state level planning, update state pandemic influenza emergency operations plan, develop regional and county pandemic influenza planning templates, coordinate training and meetings of regional community health planners, and facilitate other pandemic influenza program activities. These staff are in addition to staff currently working on pandemic influenza issues as part of their duties for the CDC Public Health Emergency Preparedness program.
3. Select planning materials, including DHHS planning checklists from www.pandemic.gov and other national materials, and develop any South Carolina specific materials needed to support planning at the organization and community level.
4. Distribute planning materials to local governments, schools, businesses, health care providers, faith-based organizations and community organizations.
5. Coordinate regional and local planning summits with follow-on planning meetings to complete local community plans for the counties and major cities and exercise these plans.
6. Provide technical assistance for planning. Plans need to address key issues, including the cascading effects of school closure; continuity of operations in business and agriculture, government and other sectors; the needs of the elderly, chronically ill, and special needs groups; psychosocial and counseling needs; law enforcement activities; and mass fatality management.
7. Determine mechanisms for activating pandemic influenza plans and communicate these to emergency management partner organizations, the public and community.
8. Provide technical assistance to Department of Education for planning at the state, school district and individual school levels.
9. Promote pandemic influenza preparedness planning for individuals, families and organizations.

State Pandemic Influenza Summit

South Carolina held the "SC Prepares: Pandemic Influenza" statewide Pandemic Influenza Preparedness Summit in Columbia on March 2, 2006. Governor Mark Sanford signed a joint proclamation with Secretary Michael Leavitt of the United States Department of Health and Human Services to agree on state and federal responsibilities for pandemic influenza preparedness. There were 364 registered participants at the summit, representing the full range of stakeholders in pandemic preparedness. A mailing list for invitations was compiled of over 1,100 leaders from business and agriculture, education, health care, faith-based and community organizations, public health, state and local government. This list will be used for ongoing follow-up and sharing of information, as well as recruitment of potential advisory committee members at the state and local levels.

Activities

1. Send DHHS planning checklists and other state and federal pandemic influenza materials electronically to a range of target audiences
2. Establishing and maintaining a pandemic influenza speaker's bureau available for community meetings and training staff to respond to individual requests for information.
3. Creating regional and local planning teams for involvement in planning summits
4. Holding regional and local summits and meetings to prepare county and city plans and promote planning in targeted sectors (education, business and agriculture, faith communities, health care, and others);
5. Establishing contracts with partner organizations to maximize public awareness and participation in community-wide preparedness measures.

See also Section IX. Public Health Communications for related awareness and preparedness activities.

Section II:

Surveillance [HHS Supplement 1. Preparedness Goal 3—Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health. Preparedness Goal 5—Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.

Summary of Key Gap(s):

- Need to implement year-round influenza surveillance
- Need to improve capabilities to obtain and track information during a pandemic

Proposed Approach(s):

Funding for surveillance and laboratory services is provided in the CDC Public Health Emergency Preparedness Cooperative Agreement. The Division of Acute Disease Epidemiology and the Public Health Laboratory are prepared to continue influenza surveillance activities and have the ability through the Bioterrorism Surveillance Section and

Special Pathogens Laboratory to classify outbreaks as natural or terrorism. The Department has the ability to classify causes and risk factors through laboratory surveillance and epidemiology response. State and Regional Outbreak Response Teams are fully operational on a 24 hours per day, 7 days per week basis, and provide timely response to urgent disease reports of potential public health significance. The laboratory is capable of providing emergency laboratory services on a 24 hour / 7 per week basis.

Activities

1. The Department will continue to work closely with hospitals, physicians, other health care providers and partner agencies to improve disease reporting and investigation at the state, regional and local levels.
2. In the next project period, funds permitting, the program will examine the feasibility of increasing influenza surveillance and lab capacity so that it can perform year-round influenza surveillance and testing.

Section III:

Public Health and Clinical Laboratories [HHS Supplement 2. Preparedness Goal 3—Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.]

Summary of Key Gap(s):

- Need for more detailed operational planning for pandemic influenza
- Need for more detailed surge capacity planning

Proposed Approach(s):

Under the CDC Public Health Emergency Preparedness Cooperative Agreement, the program will continue epidemiological investigation of unusual respiratory illness and laboratory testing. The state has established a seasonal influenza surveillance system based on laboratory confirmation, rapid influenza test reporting, and provider reports of influenza like illness. Plans will be made to improve and expand this system under the base CDC Public Health Emergency Preparedness Cooperative Agreement, as funding permits.

Activities

1. Operational plans and surveillance and laboratory surge capacity will be reviewed and updated. Agency standard operating procedures for the pandemic influenza emergency operations plan are currently being revised.
2. In the next project period (FY 2006-07), funds permitting, the program will examine the feasibility of increasing surveillance and lab capacity so that it can perform year-round influenza surveillance and testing.
3. The program will promote increased hospital emergency room and laboratory sentinel testing for influenza in hospitals throughout the state.

Section IV:

Healthcare and Public Health Partners [HHS Supplement 3. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary of Key Gap(s):

- Need more detailed operational plans for pandemic influenza
- Need to have sufficient stockpiles of personal protective equipment, medicines and supplies for isolating and caring for influenza patients
- Need to address planning and exercising mortuary services for mass fatalities

Proposed Approach(s):

Pandemic influenza emergency operations plans will be developed, updated, and improved as described above in Section I. South Carolina proposes to invest in stockpiles of medicines, protective equipment for health care workers, and ventilators using a combination of CDC Public Health Emergency Preparedness, HRSA Bioterrorism Hospital Preparedness, CDC Emergency Supplemental Pandemic Influenza and state funds. Funds from the Emergency Supplemental Pandemic Influenza program in the amount of $38,777 will be used to purchase personal protective equipment for infection control to protect public health disease control personnel engaged in response. Contracts with partner organizations will be made to provide for rapid distribution of information on pandemic influenza countermeasures and health guidance to community members and targeted sectors.

Activities

1. Plan for location of stockpiles of antiviral drugs.
2. Plan for allocation of federal antiviral drugs to pre-positioned locations.
3. Purchase medicines and supplies for state and regional stockpiles.
4. Plan for logistics of distribution and dispensing of medicines and supplies.
5. Plan for greater involvement of the medical community in disease reporting, influenza surveillance, infection control and clinical management issues.
6. Plan for communication regarding countermeasures, self-care methods, emergency health information and health guidance for diverse population segments.
7. Prepare and exercise more detailed operational plans for mass fatality management.
8. Update and revise regional mass casualty response plans. (This task is supported by the HRSA Bioterrorism Hospital Preparedness program.)

Section V:

Infection Control and Clinical Guidelines [HHS Supplements 4 & 5. Preparedness Goal 6-Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary Key Gap(s):

- Need to educate healthcare providers regarding pandemic influenza
- Need more detailed operational plans for vaccine distribution and use
- Need to inform citizens regarding vaccination

Proposed Approach(s):
Funding for epidemiology and disease control measures is provided in the CDC Public Health Emergency Preparedness Cooperative Agreement and the HRSA Bioterrorism Hospital Preparedness Program. The Division of Acute Disease Epidemiology and the Public Health Laboratory are prepared to continue influenza surveillance activities and have the ability through the Bioterrorism Surveillance Section and Special Pathogens Laboratory to classify outbreaks as natural or terrorism. The Department has the ability to classify causes and risk factors through laboratory surveillance and epidemiology response. State and Regional Outbreak Response Teams are fully operational on a 24 hours per day, 7 days per week basis, and provide timely response to urgent disease reports of potential public health significance. The laboratory is capable of providing emergency laboratory services on a 24 hour / 7 per week basis.

Activities

1. The Department will continue to work closely with hospitals, physicians, other health care providers and partner agencies to improve disease reporting and investigation at the state, regional and local levels.
2. Program staff will review vaccination protocols and clinical management practices for pandemic influenza and will make changes in standard operating procedures as needed.
3. In the next project period, funds permitting, the program will examine the feasibility of increasing surveillance and lab capacity so that it can perform year-round influenza testing.

See Section IX. Public Health Communications for related awareness and preparedness activities.

Section VI:

Vaccine Distribution and Use [HHS Supplement 6. Preparedness Goal 6-Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary of Key Gap(s):

- Need to improve detailed operational plan for vaccine distribution, use and monitoring
- Need to better address the needs of the vulnerable and hard to reach populations
- Need to inform citizens about where they will be vaccinated

Proposed Approach(s):

Pandemic influenza emergency operations plans will be developed, updated, and improved as described above in Section I. Detailed standard operating procedures for pandemic influenza vaccination are presently under development. See Section IX. Public Health Communications for the workplan related to community awareness and preparedness activities.

Activity

1. Program staff will evaluate the feasibility of using the Counter-Measure Administration system for pandemic influenza vaccine distribution and monitoring.

Section VII:

Antiviral Drug Distribution and Use [HHS Supplement 7. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary of Key Gap(s):

- Need to improve and test the state plans for distribution of antiviral drugs during a pandemic via the Strategic National Stockpile

Proposed Approach(s):

The State Pandemic Influenza Coordinating Council has held some discussion of the issues regarding procurement, stockpiling, pre-positioning, and dispensing antiviral drugs. These issues are complex and will be discussed in depth by the Disease Control sub-committee of the council. Present plans are to seek state funding and permission to use state contingency funds for purchase of a quantity of antiviral drugs for a state stockpile to be managed by the public health agency. The amount of funding, the quantity of drugs to be purchased, and the logistical issues all remain to be determined. Decisions by the Department of Health and Environmental Control, with the advise of the Council, will be reached in time to meet the July 1, 2006 deadline for informing the project officer of the number of treatment courses to be purchased.

Detailed planning will be undertaken for pre-positioning of antiviral drugs supplies in anticipation of a pandemic. This planning will address allocation of antiviral drugs supplies to pre-positioned locations in anticipation of a pandemic. These plans will build on the existing state and regional plans for receiving, storing, distributing and dispensing medicines and supplies from the Strategic National Stockpile, the state public health and Metropolitan Medical Response System (Columbia) stockpiles. It is anticipated that plans will involve pre-positioning supplies in a variety of key locations so they will be readily available to treat patients served by hospitals, community health centers and physicians. It is anticipated that

state, regional and local stockpiles of antiviral drugs will be maintained by the State of South Carolina under direction of the Department of Health and Environmental Control.

Activities

1. Detailed planning will be undertaken for pre-positioning and allocation of antiviral drugs supplies in anticipation of a pandemic.
2. Plans will build on the existing state and regional plans for receiving, storing, distributing and dispensing medicines and supplies from the Strategic National Stockpile, the state public health and Metropolitan Medical Response System (Columbia) stockpiles.
3. Plans will address the pre-positioning and allocation of supplies to a variety of key locations so they will be readily available to treat patients served by hospitals, community health centers and physicians. It is anticipated that state, regional and/or local stockpiles of antiviral drugs will be maintained by the State of South Carolina under direction of the Department of Health and Environmental Control.
4. The project officer will be informed of the state's decision regarding the number of treatment courses to be purchased by the July 1, 2006 deadline.

Section VIII:

Community Disease Control and Prevention (including managing travel-related risk of disease transmission) [HHS Supplements 8 & 9. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary of Key Gap(s):

- Need to exercise state and local operational plans
- Need to exercise containment procedures for isolation and quarantine
- Need to inform public regarding possible containment measures, preventive and protective measures that might be used

Proposed Approach(s):

Pandemic influenza emergency operations plans will be developed, updated, and improved as described above in Section I. Risk communication about prevention and containment measures will involve the timely preparation of standard messages for public information, media releases and coordinated risk communication activity. Messages must be tailored to the specific language, communication channels and cultural needs of diverse population segments. Funding for basic risk communication activities is provided in the CDC Public Health Emergency Preparedness Cooperative Agreement. Specific pandemic influenza risk communication messages for community disease control and prevention of pandemic influenza will be developed under the CDC Emergency Supplemental Pandemic Influenza program. See Section IX. Public Health Communications for the workplan related to

community awareness and preparedness activities that will inform the public regarding possible containment measures, preventive and protective measures that might be used.

Activities

1. State, regional and local plans will be developed and improved through exercises including workshops, tabletops, drills and/or functional exercises, with specific exercises for isolation and quarantine containment procedures.
2. Preparation of messages on initial outbreak of pandemic influenza anywhere in the world, outbreak in North America, outbreak in United States, and outbreak in South Carolina.
3. Preparation of messages on initial detection and containment of avian influenza H5N1 in birds in North or South America, in the United States, and in South Carolina.
4. Preparation of media releases on containment measures to educate the public as situation warrants.
5. Provision of training in risk communication on pandemic influenza for regional Public Information Officers.
6. Development of contractual relationships with organizations for delivery of preparedness and risk communication messages to specific audiences and diverse population segments

Section IX:

Public Health Communications [HHS Supplement 10. Preparedness Goal 4—Improve the timeliness and accuracy of communications regarding threats to the public's health.]

Summary of Key Gap(s):

- Need to assess readiness to meet communications needs
- Need to plan and coordinate emergency communications activities with partner organizations
- Need to identify and train public health and partner agencies on risk communications for pandemic influenza
- Need to provide the public and targeted audiences with public information messages about preventive and protective measures.

Proposed Approach(s):

Awareness and Preparedness

Each multi-county public health region will devote significant effort to public awareness, education and community preparedness measures, including health promotion messages on influenza prevention; volunteer recruitment (especially medical personnel) for service during pandemic influenza response; public awareness messages on the need for pandemic influenza preparedness, preventive and protective measures, containment, and vaccination; and targeted communications for specific audiences. Multi-media materials for use across the

state will be developed and produced by the Department of Health and Environmental Control in cooperation with South Carolina Educational Television, with marketing consultation from a commercial advertising firm. The following funds are budgeted for the multi-media campaign activities: $75,000 for printing, $30,000 for mailing expenses and $270,000 for multi-media development and production expenses. A contract will be made with SC Educational Television for creative services and production of educational programs and audiovisual materials, public service announcements and targeted media campaigns for business and agriculture, education, community, individual and family audiences. A contract will be amended with the Ad Agency for consulting and planning services. Related activities will include:

Activities

1. Develop and implement a statewide multi-media campaign on preventive and protective measures.
2. Implement a pandemic influenza speaker's bureau from DHEC and partner agencies.
3. Production of standard presentations for speakers and materials.
4. Provide training for speakers and staff responsible for providing information to individuals.
5. Public television programs on pandemic influenza preparedness.
6. Preparation of public service announcements for television and radio.
7. Print information in various forms, including magazines, newspapers.
8. Messages to school children and parents.
9. Promotion of prevention messages including annual vaccination for seasonal influenza of health care and behavioral health workers, high risk groups, diverse segments of the community, and the general population; public information and targeted messages to promote cough etiquette, hand-washing and social distancing (ie. not going in to school or work when carrying the flu); information on the differences between seasonal and pandemic flu; information on home care, prevention, containment, vaccination, psychosocial consequences and other appropriate pandemic preparedness measures.
10. Preparation and distribution of information and planning materials for targeted audiences, including local government, business and agriculture, schools, health care sector, faith community, individuals and families.
11. Distribution of information for public health clinic clients, home care patients, community health centers, public and private facilities for special needs populations, faith-based initiatives and other institutions.
12. Conduct region and local information-sharing meetings and community forums to promote awareness and preparedness in each of the following sectors: local government (counties and major cities in metropolitan statistical areas), education, business and agriculture, health care, faith-based organizations, community organizations, individuals and families.

Section X:

Workforce Support: Psychosocial Considerations and Information Needs [HHS Supplement 11. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]

Summary of Key Gap(s):

- Need to develop continuity of operations plans
- Need to improve availability of psychosocial support services

Proposed Approach(s):

Preparedness for addressing the psychosocial consequences of disaster has been a key element in both the CDC Public Health Emergency Preparedness and HRSA Bioterrorism Hospital Preparedness programs. South Carolina has organized regional psychosocial teams and provided multiple training opportunities in disaster response for behavioral health and health care practitioners. Specific training related to pandemic influenza will be offered for medical and behavioral health providers. County/city pandemic influenza plans will also address psychosocial response and will encourage the development and fostering of psychosocial teams. Public, multi-media education will stress the importance of psychosocial consequences.

Activities

1. Training for addressing the psychosocial consequences of disaster, and specifically pandemic influenza, will be offered to public health, medical and behavioral health personnel under the CDC Public Health Emergency Preparedness and HRSA Bioterrorism Hospital Preparedness programs.
2. Review local emergency operations plans to see that psychosocial response is addressed.

5. DATA POINTS FOR THE PERFORMANCE MEASURES

Section XI:

Performance Measures:

All recipients:

- Number of days following the exercise of the State/Territory-level pandemic influenza preparedness plan required to complete an AAR highlighting needs for corrective action (Target: 60 days). Los Angeles County, New York City, Chicago, and the District of Columbia should exercise and develop an AAR regarding the respective municipal plans.

  - Provide baseline data for this measure if applicable

South Carolina has conducted three state-level pandemic influenza tabletop exercises involving the State Emergency Response Team that staffs the State Emergency Operations Center during activation. The exercises were designed to test the State Emergency Operations Plan, Mass Casualty Annex, Pandemic Influenza plan. All Emergency Support Functions participated in the exercises, which were held on January 18, 2006; February 1, 2006; and February 14, 2006. The After-Action Report for this series of related exercises is in preparation and will be completed by April 14, 2006, within the 60-day performance metric. Findings and recommendations from the report will be used to guide revisions to the state pandemic influenza plan.

- Describe your state's plan to evaluate this measure

The completed after-action report for the state exercise will be reviewed by program staff, who will incorporate the findings into the next version of the state pandemic influenza plan. During the project period, South Carolina proposes to complete two additional state level tabletop exercises of the pandemic influenza plan. One exercise will be conducted with the State Pandemic Influenza Coordinating Council on May 19, 2006 to engage the state advisory board in the emergency operations plan and identify outstanding issues that need to be better addressed. A second tabletop exercise will be scheduled by August 2006 for the State Public Health Emergency Plan Committee, a group tasked by state statute with advising the Governor in the event of a public health emergency. After-action reports will be prepared for each of these exercises within the 60-day performance metric

State and Territories Only:

- Number and percentage of municipalities or other communities within the recipient jurisdiction that have developed a written community-wide plan for pandemic influenza preparedness (Target: 80%)

  - Describe how your state will define municipalities and other communities

For the purposes of local government emergency preparedness planning, "communities" will be defined as counties and major cities. There are 46 counties and six areas of the state within Large Metropolitan Statistical Areas. In South Carolina, the LMSAs include: Columbia, population 679,000 (2004 US Census estimate); Greenville, population 584,000 (2004 US Census estimate); Charleston-North Charleston, population 583,000 (2004 US Census estimate); and Spartanburg, population 264,000 (2004 US Census estimate). (Two areas of South Carolina are in LMSA's with adjoining states: Rock Hill is in the Charlotte-Gastonia-Concord NC-SC LMSA, population 1,475,000 (2004 US Census estimate) and Aiken is in the Augusta-Richmond County GA-SC LMSA, population 515,000 (2004 US Census estimate). These inter-state border cities will coordinate county plans with the metropolitan area of the neighboring states.)

Each of these counties and cities has an all hazards emergency operations plan that is integrated with the State Emergency Operations Plan: this forms the emergency

planning and response framework for the state. A planning template will be developed for use by the counties and cities for the process of updating emergency operations plans to include pandemic influenza preparedness measures.

- Provide baseline data for this measure if applicable

A survey of regional public health preparedness directors revealed that no county or LMSA presently has a specific, detailed operational plan for pandemic influenza response (0/50). All counties and cities have all-hazards emergency operations plans that could be invoked to guide coordination of response activities at the county and city levels.

- Describe your state's plan to evaluate this measure

At the conclusion of the project period, regional public health preparedness directors will be surveyed to determine which counties and cities have completed their pandemic influenza emergency operations plans. The plans will be reviewed at the regional level by the regional Mass Casualty Response Plan committees.

- **Number and percentage of municipalities or other communities within the recipient jurisdiction that have exercised their pandemic influenza plans and prepared after action reports AARs (Target: 80%)**

  - Describe how your state will define municipalities and other communities

For the purposes of local government emergency preparedness planning, "communities" will be defined as counties and major cities. There are 46 counties and six areas of the state within Large Metropolitan Statistical Areas. In South Carolina, the LMSAs include: Columbia, population 679,000 (2004 US Census estimate); Greenville, population 584,000 (2004 US Census estimate); Charleston-North Charleston, population 583,000 (2004 US Census estimate); and Spartanburg, population 264,000 (2004 US Census estimate). (Two areas of South Carolina are in LMSA's with adjoining states: Rock Hill is in the Charlotte-Gastonia-Concord NC-SC LMSA, population 1,475,000 (2004 US Census estimate) and Aiken is in the Augusta-Richmond County GA-SC LMSA, population 515,000 (2004 US Census estimate). These inter-state border cities will coordinate county plans with the metropolitan area of the neighboring states.)

  - Provide baseline data for this measure if applicable

A survey of regional public health preparedness directors revealed that no county or LMSA presently has exercised a specific, detailed operational plan for pandemic influenza response (0/50). Over the past two years, a number of hospital exercises have been held that used a pandemic influenza scenario.

- Describe your state's plan to evaluate this measure

At the conclusion of the project period, regional public health preparedness directors will be surveyed to determine which counties and cities have completed their pandemic influenza emergency operations plan exercises and prepared after-action reports. The after-action reports will be reviewed at the regional level by the regional Mass Casualty Response Plan committees.

South Carolina
Phase II Pandemic Influenza
Assessment Results and Gaps

A follow-up state assessment was conducted using the format based on the DHHS "State and local Pandemic Influenza Planning Checklist." Members of the State Pandemic Influenza Coordinating Council, public health leaders and key preparedness staff were asked to complete the online survey. For this survey, respondents were asked to rank each statement on what they felt were the most essential priorities. A total of 247 individuals were invited to participate and 33 completed responses were received. These responses and input from public health staff were used to determine what gaps remained in our planning process and to rank the gaps. These responses formed the basis for the updated state assessment included as Attachment 4a Self-Assessment State. Items rated as "In Progress" or "Not Started" were identified as gaps. Discussions with key public health leaders and stakeholders and information from the CDC and HRSA progress reports were used to determine which of the "In Progress" items were near completion, or which needed to be highlighted as priorities in this grant period. These responses and the responses of the assessment were used to determine South Carolina's workplan.

The local public health assessments were also conducted for a second time using the original format. Originally, these assessments were conducted in April 2006. The assessments were sent out to each of the eight public health regions in July 2006. Regional Public Health Preparedness Directors were asked to report on the status of each item, by consulting with the planning groups in their region. The results of the regional re-assessments were included in the assessment tools 4b Self Assessment-Local Public Health and 4c Self Assessment-Local Public Health Totals. The results of the local assessments were also used to determine which gaps remain to be targeted during Phase II.

The following gaps were identified as either being "in progress" or "not started."

"Community Preparedness Leadership and Networking":

- The accountability and responsibility for key stakeholders engaged in planning and executing specific components of the operational plan are delineated, and the plan includes timelines, deliverables, and performance measures.

- It is clear which activities will occur at state, local, or coordinated level.

The state exercise plan, referred to in this grant application, is a further step in delineating the responsibilities of key stakeholders and the timelines and deliverables for the overall state exercise program. Exercising is a key component of the application for this grant cycle. To date, there have been four state level pandemic tabletop exercises and, by the end of August, seven of the eight regions will have conducted their initial pandemic tabletop exercises at the regional and county levels. In Phase II, further exercises at the state and local levels will be

conducted to test many of the areas reflected in the Critical Tasks and to establish the corrective actions needed in local and state plans.

The structure for most of the plans and the planning process are in place. The state pandemic influenza plan has been incorporated into the overall State Emergency Operations Plan, and will continue to be updated as further exercises are conducted. Templates for regional plans have been provided to the local jurisdictions and each of the eight regions has completed its draft plan. However, regional assessments indicated that most are still in process of planning for all elements of their pan flu plans.

With the completion of the local pan flu planning summits in late August by most of the regions, additional stakeholders were identified and have begun participating in the local planning process. The addition of these local stakeholders will enhance the planning and exercising process throughout the grant cycle. Similarly, as key stakeholders continue to be identified the accountability and responsibility of those key stakeholders for planning and executing specific components of the operational plan will continue to be delineated and tested during upcoming exercises.

Since the initiation of Phase I of the Pan Flu Cooperative Agreement, staff has been hired or identified at the state and local levels to coordinate the planning process. At the state level, a state coordinator and a regional coordinator were hired to coordinator Pan Flu grant activities and to act as resources for stakeholders, other areas of the state health agency and the regional health departments. This action also clarifies the state role in providing guidance and assistance to the region's planning efforts.

- The operational plan addresses integration of state, local, tribal, territorial, and regional plans across jurisdictional boundaries.

South Carolina and the states of Region IV have made significant progress in planning across jurisdictional boundaries, but interstate planning efforts will continue. An MOA between these states for enhanced interstate cooperation on public health and medical services has been drafted and is currently being processed at the state levels for approval and signatures. Further planning efforts will address more specific issues regarding communications, personnel, equipment and isolation/quarantine issues. An interstate conference and tabletop exercise is planned to address this gap. Locally, seven of the eight regions reported that this step is "in progress" or "not started."

- Legal authorities for executing the operational plan, especially those relevant to case identification, isolation, quarantine, movement restriction, healthcare services, emergency care, and mutual aid, are transparent to all stakeholders.

- The process for requesting, coordinating, and approving requests for resources to state and federal agencies has been made clear to all stakeholders.

From local exercising and from input from stakeholders, the need for further definition of the process for requesting, coordinating and approving requests for resources to state and federal agencies has been identified. This gap will be addressed during the exercising and corrective actions made to local plans.

- An Incident Command System for the pandemic plan that is based on the National Incident Management System has been created.

- This system has been exercised along with other operational elements of the plan.

Although the National Incident Management System and Incident Command have been implemented in the state and regional plans, there are still many questions regarding the identification of specific roles. Planning activities and exercising will continue to clarify these roles, at both the state and local levels. Four of the eight regions reported that this was a gap.

- What will constitute a "law enforcement" emergency has been determined and law enforcement officials have been educated so they can pre-plan for their families to sustain themselves during the emergency.

State and local law enforcement personnel who will maintain public order and help implement control measures have been identified, however, further planning and testing at the local level, particularly, will define the issues that may be faced with a decreased law enforcement workforce during a pandemic and will ensure that local law enforcement understand their roles during a pandemic. None of the regions have completed this gap.

- Plans are flexible so they can be adapted to the magnitude and severity of the pandemic and to available resources.

Planning at the state and local level needs to be adapted to include a greater magnitude of severity. Plans currently are developed on the minimal to moderate models of morbidity and mortality.

- Provision of psychosocial support services for the community, including parents and their families, and those affected by community containment procedures are addressed.

The development of the means to provide psychosocial support services for the community will continue in Phase II. State level staff will continue to work with stakeholders, to develop these means, to provide education about psychosocial resources. State level staff and stakeholders will also continue to work on identifying special populations in South Carolina, so that needs specific to these groups can be identified and communication messages, resource information, and planning can be developed to ensure provisions for these groups. Locally, one region reported completion of a plan to provide psychosocial

support services and the remaining seven regions report that they are “in progress” or “not started” toward this objective.

Surveillance

- Traditional surveillance for seasonal influenza (e.g., virologic, outpatient visits, hospitalization, and mortality) including electronic reporting, is conducted year-round.

Insufficient number of personnel to promote ongoing voluntary participation by health care providers in Influenza Like Illness (ILI) and virologic surveillance networks prevents the agency from implementing year- round traditional surveillance in the health regions. Funding for a central office graduate assistant and hourly regional influenza surveillance coordinators dedicated to maintenance and enhancement of the ILI network would allow the agency to maintain and implement CDC minimum requirements for ILI providers in South Carolina's currently enrolled community outpatient ILI providers, as well as to recruit additional sentinel hospital providers. Regional influenza coordinators are needed for the constant upkeep of rapport, problem solving, and implementation of office systems application of the ILI system to maintain consistent timely weekly report submissions, particularly in between influenza seasons.

- Capacity for rapid identification of unusual influenza strains has been improved by working with federal partners to enhance laboratory-based monitoring of seasonal influenza subtypes.

Although the state's capacity for rapid identification of unusual influenza strains has been improved by working with federal partners, additional funding is needed to maintain shipping and laboratory supplies, including reagents, for year-round virologic testing.

- Procedures to implement enhanced surveillance once a pandemic is detected to ensure recognition of the first cases of pandemic virus infection in time to initiate appropriate containment protocols have been developed.

Progress continues to be made towards completing this gap. Standard operating procedures for novel human strain/pandemic influenza surveillance are in the process of development and approval stages. Pandemic screening forms are in the process of development to enable recognition of initial cases and to facilitate containment protocols.

Deployment of the CDC's Outbreak Management System (OMS) is proposed for this grant period in order to address not only the enumeration of cases and contacts associate with the initial public health response activities, but also by using the countermeasures component of the OMS SC DHEC will be able to track and manage those individuals who have been isolated and quarantined due to public health interventions to slow the spread. A request is made for a Central Office graduate student housed within the Division of Acute Disease Epidemiology to assist in the development of the OMS data entry screens that would be specific for influenza/novel-strain investigation and patient/contact management. In addition, staff requested for the Regional Public Health departments would also be asked to assist in the statewide deployment of OMS to local response staff in order to provide proficiency at the local level for surveillance and response activities. Use of OMS as part of

routine outbreak investigation management would also provide familiarity with the system should the need for use in a response to novel/pandemic-strain outbreak investigations and containment activities.

Registered Health Alert Network (HAN) providers will be sent updated case definitions, accepted specimen collection protocol, infection control practices and contact information for the DHEC health department.

At least one quarterly EpiNotes publication updating registered providers on specimen collection protocol, infection control practices, case definition and DHEC contact information for suspected cases will be published.

- Animal and human health surveillance systems are linked and information is routinely shared.

Currently, animal and human health surveillance systems are not linked electronically. There is are periodic meetings and communications between Clemson Livestock and Poultry and DHEC Bureau of Disease Control's public health veterinarian in accordance with PHIN requirements. There needs to be increased coordination of statewide stakeholders (CHESS, CULPHD and DHEC) on disease surveillance efforts to meet mutually agreed upon objectives and milestones. The Agroterrorism and Food Safety Subcommittee of the state Pandemic Influenza Coordinating Council/State Bioterrorism Advisory Committee has been meeting regularly since June 2003 for information sharing, preparedness planning efforts and implementation of coordinated public health-agriculture preparedness initiatives. Extensive attention has been paid to preparedness for avian influenza and the interface with preparations for human pandemic influenza. There is close cooperation between CULPH and DHEC on all zoonotic disease incidents, surveillance and response issues.

- Systems to obtain and track information daily during a pandemic on the following items has been developed:
    - the numbers of newly hospitalized cases,
    - newly quarantined persons, and
    - hospitals with pandemic influenza cases

The primary gap identified for this objective is the lack of funding for staff to facilitate training in the use of OMS system for case tracking. Funding for a graduate assistant in DHEC central office dedicated to the development of the OMS system webpages is needed in order for OMS to be operational. The absence of developed web pages specific for identifying and tracking isolated or quarantined cases of novel human virus or pandemic influenza would be addressed by this graduate assistant.

A pandemic influenza surveillance standard operating procedure as well as development of a paper screening and tracking form to be used on suspected initial cases and containment subjects has not yet been done.

The syndromic surveillance systems in sentinel hospitals in each of the public health regions do not yet provide real-time respiratory-related chief complaint admission data.

Public Health and Clinical Laboratories

- Surveillance for influenza-like illnesses (ILI) among laboratory personnel working with novel influenza viruses has been instituted.

In the priority area related to Public Health and Clinical Laboratories, the state's public health laboratory has made significant progress in all but one of the areas cited on the assessment. Surveillance for influenza-like illnesses (ILI) among laboratory personnel working with novel influenza viruses has not yet begun. Plans call for implementation of weekly surveillance of laboratory personnel for ILI. Monitoring will begin with seasonal influenza testing (October), and will be collected and recorded by the employee health nurse on a weekly basis throughout the influenza season.

- An operational plan to augment the capacity of public health and clinical laboratories to meet the needs of the jurisdiction during a pandemic has been developed.

- This operational plan has been exercised.

Data has been gathered to develop and exercise a Continuity of Operations Plan (COOP) for pandemic influenza to ensure the continuity of operations for mission essential core activities at the state public health laboratory during the pandemic influenza period, and augment the capacity of the public health laboratory. This includes stockpiling of supplies and cross training of employees.

Influenza diagnostic testing proficiency and adherence to biosafety containment and biomonitoring protocols is assessed regularly in the state public health laboratory. DHEC has no regulatory authority over hospital/clinical labs and cannot ensure that protocols in these areas are followed. However, the Bureau of Laboratories provides influenza kits for collection and free shipment of specimens to the laboratory, as well as guidance and technical assistance with protocols as requested.

Public health laboratory staff is trained in protocols for safe specimen collection and submission protocols, recognizing how and to whom to report a novel strain of influenza. Public health staff provides guidance to frontline clinicians and laboratory personnel in the form of a yearly letter detailing reporting protocols and safe specimen collection. This letter is provided to all participants in seasonal laboratory-based surveillance.

Healthcare and Public Health Partners

- The role of public health in coordinating with the healthcare sector in delivery of care during a pandemic has been defined.

- Public health knows what the healthcare sector needs or expects of it before and during a pandemic.

- An operational plan for the healthcare sector that addresses the following elements has been developed:
    - healthcare of persons with influenza during a pandemic,
    - legal issues that can affect staffing and patient care
    - continuity of services for other patients,
    - protection of the healthcare workforce, and
    - medical supply contingency plans

- This operational plan has been exercised.

- All components of the healthcare delivery network (e.g., hospitals, long-term care, home care, emergency care) are included in the operational plan, and the special needs of vulnerable and hard-to-reach patients are addressed.

- A plan for ensuring real-time situational awareness of patient visits, hospital bed and intensive care needs, medical supply needs, and medical staffing needs during a pandemic has been developed.

DHEC has been working with healthcare partners on many of these issues since the inception of the original CDC Public Health Emergency Preparedness and HRSA Bioterrorism Hospital Preparedness grants. During Phase I, a regional pandemic plan template was provided to the regional planning groups. The first drafts of the regional pandemic plans have been completed. The majority of counties are engaged in the planning process with local health care organizations.

These planning efforts with healthcare partners are being addressed primarily through the regions and counties in concert with HRSA NBHPP activities. The planning efforts to date have focused on surge for mass casualties. Planning efforts have begun specifically for surge created by a
pandemic. Issues that will continue to be addressed relate specifically to medical supply contingency (esp. ventilators), continuity of services and operation, quarantine and isolation, and the role of public health in coordinating with the healthcare sector in delivery of care. Corrective actions from local tabletop exercises related to these issues will be incorporated in the current regional, county and healthcare provider pandemic plans. Funds from the CDC PHEP and HRSA NBHPP cooperative agreements will be used to support the pandemic planning effort. Specifically, HRSA funds will be used to address the medical and equipment surge gaps for hospitals.

Regional responses to the assessment indicated that seven out of eight areas have begun work to clarify the needs and expectations of the healthcare sector. To date, all but two of the regions have either completed or are in the process of completing the necessary memoranda of agreements between public health and the healthcare sector.

- An operational plan for provision of mortuary services during a pandemic has been developed

- The plan for mortuary services has been tested

The State Emergency Operations Plan addresses basic issues in emergency mortuary services, but considerable detailed operational planning is needed to effectively prepare for a major mass casualty event. This is a significant gap in state, regional and local plans for pandemic influenza preparedness.

- A current roster of all active and formerly active healthcare personnel available for emergency healthcare services is maintained.

- What will constitute a medical staffing emergency has been defined.

- The operational plan to initiate appropriate credentialing of volunteer healthcare personnel (including in-state, out-of-state, international, returning retired, and non-medical volunteers) to meet staffing needs during a pandemic has been exercised.

The operational plan to initiate appropriate credentialing of volunteer healthcare personnel is in progress with the establishment of South Carolina's ESRVHP program. A preliminary database for volunteer registration has been implemented on the DHEC website and the purchase of the software necessary to complete the electronic registration is underway. Information on this registration is currently being communicated to regional stakeholders

- The healthcare facilities in the jurisdiction have exercised a plan for isolating and/or cohorting patients with known or suspected influenza, training clinicians, and supporting the needs for personal protective equipment.

- The healthcare facilities in the jurisdiction have exercised an operational plan to initiate, support, and enforce quarantine of potentially exposed healthcare personnel.

Exercise plans are being developed at the state, regional and local levels to address elements of the healthcare facilities' plans. This remains a gap in preparedness efforts.

Infection Control and Clinical Guidelines

- Messages have been crafted to help educate healthcare providers about novel and pandemic influenza, and infection control guidelines.

- An operational plan has been developed to regularly update providers as the influenza pandemic unfolds.

- This plan has been tested.

A focus of Phase I of the Pandemic Influenza Cooperative Agreement has been the development of messages and training of health care providers. The communication campaign was initiated with the development of messages about seasonal influenza with plans to expand that message to incorporate pandemic influenza specific messages for the public and for healthcare providers. The DHEC Pandemic Influenza Planning Group, including public health physician representatives, is currently developing infection control guidelines and messages.

The operation plan to update providers has been developed and will be tested The plan includes the use of Reach SC, the Health Alert Network and the SC Hospital Capacity website to reach healthcare providers and other appropriate clinical providers. This plan will be tested in planned state and local tabletop exercises.

Vaccine Distribution and Use

- An operational plan for vaccine distribution, use, and monitoring which covers the following elements has been developed:
- Plan for vaccinating occupationally-defined and other priority groups
    - Storage
    - Security during transport, storage, and administration
    - Cold chain requirements
    - Location of vaccination
    - Personnel who will vaccinate
    - Availability of necessary equipment and supplies
    - Training requirements for involved personnel.
    - Tracking number and priority of vaccine recipients
    - Vaccine safety monitoring
    - Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)
    - Address needs of vulnerable populations

- This operational plan has been tested

- Written agreements document the commitments of participating personnel and organizations in the vaccination operational plan.

- Citizens are informed and know in advance where they will be vaccinated.

At the state level, specific guidance has been developed for vaccine distribution and use. This guidance addresses all of the required plan elements. The draft guidance has been made available to the public health regional planners for use in developing plans specific to their local jurisdictions. At this time, none of the public health regions have completed their vaccine distribution and use plan, although all of the eight regions indicated in the assessment that they are “in process” of developing the plans and are “in process” of developing their plans for informing citizens about preparedness plans and activities, including information about vaccination.

Guidance and policy for written agreements has been developed at the state level and provided to the public health regions for their planning activities. Since none of the plans have been completed at the regional level, none have been tested and about two-thirds of the public health regions indicated that they have begun the process to develop written agreements documenting the commitment of participating personnel and organizations in the plan.

Antiviral Drug Distribution and Use

- Plans for distribution and use of antiviral drugs during a pandemic via the Strategic National Stockpile (SNS), as appropriate, to healthcare facilities that will administer them to priority groups have been developed. These plans cover:
    - Storage
    - Security
    - Distribution
    - Tracking
    - Adverse events monitoring
    - Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)

- The plans have been tested.

Information included in this grant guidance reflects the current development of the state's antiviral distribution plan. The state's Director of the Strategic National Stockpile is coordinating the development of policies/procedures for this plan, with input from the Pandemic Influenza Planning Group.

South Carolina has submitted its plans to purchase its allotment of 435,589 courses of antivirals under the 25% subsidy by DHHS. South Carolina will incorporate any federal guidance that is provided on the distribution of these antivirals in the state's current plan.

The draft plan for distribution and use of antiviral drugs during a pandemic was based on existing state and regional plans for receiving, storing, distributing and dispensing medicines and supplies from the Strategic National Stockpile, the state public health supply and the Columbia Metropolitan Medical Response System stockpiles.

The plan has not yet been updated and exercised, but it is expected that there will be a minimum of two mass vaccination clinic exercises conducted at seasonal influenza vaccination clinics in Fall 2006.

Community Disease Control and Prevention

- An operational plan to investigate and contain potential cases or local outbreaks of influenza potentially caused by a novel or pandemic strain has been developed.

- This plan has been exercised.

The operational plans for outbreak investigations of novel strains of influenza are being developed and will include specific response criteria at the state and regional levels. The plans are still in draft stages and have not been exercised.

- A containment operational plan that delineates the following items has been developed:
    - the criteria for isolation and quarantine,
    - the procedures and legal authorities for implementing and enforcing these containment measures, and
    - the methods that will be used to support, service, and monitor those affected by these containment measures in healthcare facilities, other residential facilities, homes, community facilities, and other settings

- This plan has been exercised.

This gap is being addressed with the development of clinical criteria through the South Carolina Disease Control subcommittee to be included in the existing draft public health orders for isolation and quarantine. Information specific to isolation/quarantine will include recommendations from CDC and WHO, based upon the latest epidemiological and clinical data available at the time of pandemic detection.

Draft public health orders have been created, identifying the requirement for isolation/quarantine and the duration of those orders. Additionally, methods that will be used to support, service and monitor those affected by the containment measures have been defined in the plan through the state emergency operations plan, ESF-8 functions. Monitoring will be conducted using the PHIN-compliant CDC outbreak management system, which has a component for tracking administration of countermeasures. These elements of the plan have been addressed and are no longer considered gaps.

The plan must be exercised.

- An operational plan to implement various levels of movement restrictions within, to, and from the jurisdiction.

- This plan has been exercised.

This element of the operational plan remains to be addressed. The current plan is based on hurricane evacuations. The current evacuation plans will be reviewed and used as a model for the pandemic plan to address movement restrictions. Planning for quarantine and pandemic disease control operations for the Port of Charleston will be undertaken in Phase II. Once developed, these plans will be tested.

- Citizens have been informed in advance what containment procedures may be used in the community.

This measure is in progress. Information has been provided to local jurisdictions during the local pandemic summits. Additional work needs to be conducted including the development of implementing isolation and quarantine procedures, methods of notification and the content of these messages. Some notification procedures, such as the use of HAN advisories and television, radio and media messages have been developed.

Public Health Communications

- Readiness to meet communications needs in preparation for an influenza pandemic has been assessed, including regular review and updating of communications plans.

- Plans for coordinating emergency communication activities with private industry, education, and non-profit partners (e.g., local Red Cross chapters) have been developed.

- Community resources, such as hotlines and websites to respond to local questions from the public and professional groups have been developed and are maintained.

- The appropriate local health authorities have access to EPI-X and are trained in its use.

- Redundant communications systems/channels that allow for expedited transmission and receipt of information are in place.

The agency's emergency communications plan has been developed and is frequently tested, both in exercises and real events, to ensure adequacy to respond to all types of emergencies. Continued planning will address the effect that could result from increased absenteeism due to a pandemic.

The Pandemic Influenza Coordinating Council's Training Advisory Subcommittee has brought numerous partner organizations together to share communications strategies. Communications plans are being developed to incorporate the use of persons from other state agencies and nongovernmental organizations, including the American Red Cross and others. Additionally, the list of communications contacts of key stakeholders has been developed, but is maintained and continually updated.

DHEC's pandemic influenza website has been established and receives frequent queries from the public, businesses, and other organizations interested in the development of their own response plans, as well as more general questions about the disease and its spread. This website is updated as further information is available and as state and local guidelines are developed. Work is well underway, with funding from the CDC Public Health Emergency Preparedness Cooperative Agreement to establish a statewide 2-1-1 system capable of

handling a significant surge in phone calls during an emergency situation, including a pandemic.

Workforce Support: Psychosocial Considerations and Information Needs

- A continuity of operations plan for essential department services, including contingency planning for increasing public health workforce in response to absenteeism among health department staff and stakeholder groups that have key responsibilities under a community's response plan has been developed.

The agency has begun outlining steps to provide for continuity of operations. The Pandemic Influenza Planning Group has developed the first draft of procedures to allow for the agency's continuity of operations during a pandemic. This draft document has been presented to the agency's Health Services management teams and the regional directors. The draft document describes an approach to defining the agency's essential functions and skills needed to maintain them. The document incorporates the CDC recommendations regarding liberal leave policies, teleworking policies and other measures that serve to control the spread of influenza in the workplace and community. Once the document is adopted by the agency, it can serve as a template for other state agencies and community organizations and businesses.

- A plan for ensuring availability of psychosocial support services (including educational and training materials) for employees who participate in or provide support for the response to public health emergencies such as influenza pandemics has been developed.

Significant gaps in the provision of behavioral health/psychosocial support services exist within the public health system in SC. In recent years, the SC Department of Mental Health and SCDHEC have partnered to increase behavioral health training among public health and hospitals employees, but the training has not specifically addressed the circumstances of a pandemic. During a pandemic, access by the public to local or state behavioral health services will be strained, as the agencies themselves struggle to provide the staff to implement counseling and behavioral health services. Compounding this problem is the fact that most South Carolina community hospitals no longer have active counseling departments.

Public health social workers provide clinical mental health services, preventive health and community development activities across the state. In addition to these clinical skills, social workers are trained in systems development and often serve as a critical link between clients and appropriate community resources. Public health social workers represent a significant resource in the face of a disaster or catastrophic event, such as a pandemic influenza. Unfortunately, in recent years, public health social work has faced decreasing levels of funding from federal and state programs. Since 2000, SC DHEC has experienced approximately a 50% reduction in its social work workforce across the state. These losses create a disturbing gap in the ability of the agency to coordinate or activate an adequate psychosocial response should a major disaster or event like a pandemic occur. In an attempt to address these gaps the Office of Public Health Social Work has provided consultation to the agency and assumed a leadership role within the state by organizing training for

behavioral health professionals, creating an interagency advisory committee, and most importantly spearheading the formation of local psychosocial response teams. These efforts have also been compromised by the lack of adequate, sustainable funding.

State Assessment Gaps Ranked

Ranking considerations:
If a task was already considered largely complete, it was not included
If a task was being addressed with another grant's funds/activities, it was ranked lower
If a task was a logical first step, it was ranked higher

Community Preparedness Leadership and Networking

1. The accountability and responsibility for key stakeholders engaged in planning and executing specific components of the operational plan are delineated, and the plan includes timelines, deliverables, and performance measures.

2. It is clear which activities will occur at state, local, or coordinated level.

3. Plans are flexible so they can be adapted to the magnitude and severity of the pandemic and to available resources.

4. An Incident Command System for the pandemic plan that is based on the National Incident Management System has been created.

5. This system has been exercised along with other operational elements of the plan.

6. The process for requesting, coordinating, and approving requests for resources to state and federal agencies has been made clear to all stakeholders.

7. Provision of psychosocial support services for the community, including parents and their families, and those affected by community containment procedures are addressed.

8. The operational plan addresses integration of state, local, tribal, territorial, and regional plans across jurisdictional boundaries.

9. Agreements with neighboring jurisdictions are formalized and address communication, mutual aid, and other cross-jurisdictional needs.

10. Legal authorities for executing the operational plan, especially those relevant to case identification, isolation, quarantine, movement restriction, healthcare services, emergency care, and mutual aid, are transparent to all stakeholders.

11. What will constitute a "law enforcement" emergency has been determined and law enforcement officials have been educated so they can pre-plan for their families to sustain themselves during the emergency.

12. The State Public Health Agency, with animal health sectors (including but not limited to industry, veterinary diagnostic laboratories, state departments of agriculture) have developed an operational plan to prevent, detect and respond to reports of disease in animals as a early warning of threat to human health including:
    - education of and risk communication to the poultry owning public, especially small operations
      - a plan for surveillance in birds
      - disease reporting and data sharing
      - triggers for action to contain disease within the animal sector
      - triggers to perform heightened surveillance to detect human illness.

Surveillance

1. Capacity for rapid identification of unusual influenza strains has been improved by working with federal partners to enhance laboratory-based monitoring of seasonal influenza subtypes.

2. Procedures to implement enhanced surveillance once a pandemic is detected to ensure recognition of the first cases of pandemic virus infection in time to initiate appropriate containment protocols have been developed.

3. Systems to obtain and track information daily during a pandemic on the following items has been developed:
    a. the numbers of newly hospitalized cases;
    b. newly quarantined persons; and
    c. hospitals with pandemic influenza cases

4. Traditional surveillance for seasonal influenza (e.g., virologic, outpatient visits, hospitalization, and mortality) including electronic reporting, is conducted year round.

5. Animal and human health surveillance systems are linked and information is routinely shared.

Public Health and Clinical Laboratories

1. An operational plan to augment the capacity of public health and clinical laboratories to meet the needs of the jurisdiction during a pandemic has been developed.

2. Surveillance for influenza-like illnesses (ILI) among laboratory personnel working with novel influenza viruses has been instituted.

Healthcare and Public Health Partners

1. An operational plan for the healthcare sector that addresses the following elements has been developed:
    a. healthcare of persons with influenza during a pandemic,
    b. legal issues that can affect staffing and patient care
    c. continuity of services for other patients,
    d. protection of the healthcare workforce, and
    e. medical supply contingency plans

2. This operational plan has been exercised

3. An operational plan for provision of mortuary services during a pandemic has been developed.

4. The plan for mortuary services has been tested.

5. A current roster of all active and formerly active healthcare personnel available for emergency healthcare services is maintained.

6. All components of the healthcare delivery network (e.g., hospitals, long-term care, home care, emergency care) are included in the operational plan, and the special needs of vulnerable and hard-to-reach patients are addressed.

7. What will constitute a medical staffing emergency has been defined.

8. A plan for ensuring real-time situational awareness of patient visits, hospital bed and intensive care needs, medical supply needs, and medical staffing needs during a pandemic has been developed.

9. The operational plan to initiate appropriate credentialing of volunteer healthcare personnel (including in-state, out-of-state, international, returning retired, and non-medical volunteers) to meet staffing needs during a pandemic has been exercised.

10. The healthcare facilities in the jurisdiction have exercised a plan for isolating and/or cohorting patients with known or suspected influenza, training clinicians, and supporting the needs for personal protective equipment.

11. The healthcare facilities in the jurisdiction have exercised an operational plan to initiate, support, and enforce quarantine of potentially exposed healthcare personnel.

12. The role of public health in coordinating with the healthcare sector in delivery of care during a pandemic has been defined.

13. Public health knows what the healthcare sector needs or expects of it before and during a pandemic.

14. The necessary memoranda of agreement/understanding between public health and the healthcare sector are in place.

Infection Control and Clinical Guidelines

1. An operational plan has been developed to regularly update providers as the influenza pandemic unfolds.

2. This plan has been tested.

Vaccine Distribution and Use

1. An operational plan for vaccine distribution use, and monitoring which covers the following elements has been developed:

    a. Plan for vaccinating occupationally-defined and other priority groups
    b. Storage
    c. Security during transport, storage and administration
    d. Cold chain requirements
    e. Location of vaccination
    f. Personnel who will vaccinate
    g. Availability of necessary equipment and supplies
    h. Training requirements for involved personnel
    i. Tracking number and priority of vaccine recipients
    j. Vaccine safety monitoring
    k. Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)
    l. Address needs of vulnerable populations

2. This operational plan has been tested.

3. Written agreements document the commitments of participating personnel and organizations in the vaccination operational plan.

4. Citizens are informed and know in advance where they will be vaccinated.

Antiviral Drug Distribution and Use

1. Plans for distribution and use of antiviral drugs during a pandemic via the Strategic National Stockpile (SNS), as appropriate, to healthcare facilities that will administer them to priority groups have been developed. These plans cover:

    a. Storage

b. Security
c. Distribution
d. Tracking
e. Adverse events monitoring
f. contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)

2. The plans have been tested.

Community Disease Control and Prevention

1. An operational plan to investigate and contain potential cases or local outbreaks of influenza potentially caused by a novel or pandemic strain has been developed.

2. This plan has been exercised.

3. A containment operational plan that delineates the following items has been developed:
   a. the criteria for isolation and quarantine,
   b. the procedures and legal authorities for implementing and enforcing these containment measures, and
   c. the methods that will be used to support, service, and monitor those affected by these containment measures in healthcare facilities, other residential facilities, homes, community facilities, and other settings

4. This plan has been exercised.

5. An operational plan to implement various levels of movement restrictions within, to, and from the jurisdiction.

6. This plan has been exercised.

7. Citizens have been informed in advance what containment procedures may be used in the community.

Public Health Communications

1. Plan for providing regular updates to key stakeholders as the pandemic unfolds has tested.

2. Community resources, such as hotlines and websites to respond to local questions from the public and professional groups have been developed and are maintained.

3. Readiness to meet communications needs in preparation for an influenza pandemic has been assessed, including regular review and updating of communications plans.

4. Plans for coordinating emergency communication activities with private industry, education, and non-profit partners (e.g., local Red Cross chapters) have been developed

Workforce Support: Psychosocial Considerations and Information Needs

1. A continuity of operations plan for essential department services, including contingency planning for increasing public health workforce in response to absenteeism among health department staff and stakeholder groups that have key responsibilities under a community's response plan has been developed.

2. A plan for ensuring availability of psychosocial support services (including educational and training materials) for employees who participate in or provide support for the response to public health emergencies such as influenza pandemics has been developed.

Prioritization of Remaining Target Capabilities: Year Two and Three

Year Two:

Epidemiological Surveillance and Investigation
Community Preparedness and Participation

Year Three:

Emergency Public Information and Warning
Public Health Laboratory Testing

SOUTH CAROLINA
SUMMARY AND TIMELINE OF PLANNED STEPS TO UPDATE THE ANTIVIRAL DISTRIBUTION PLAN

Assumptions:
In the first wave of a pandemic of a novel strain of an influenza virus there will not be adequate vaccine to vaccinate the public to mitigate the effects of the virus on the populous. Current CDC attack rate projections are at 25% of those exposed will become ill. The federal government is planning for the availability of adequate antivirals to treat 25% of the population.

Plan:
The South Carolina antiviral distribution plan provides for a two-pronged approach to meet the treatment needs of our citizens.

Ring Containment. The initially identified cases and contacts will be treated and/or prophylaxed with antiviral medications that are forward placed in each of the eight SCDHEC Health Regions. These drugs will be delivered to the pharmacy permitted locations in each Health Region by the DHEC Bureau of Business Management once they are received by the Public Health Preparedness Pharmacy from the manufacturer. These drugs will also be used to prophylax first responder contacts to the initial cases. Once the virus is widespread in the state, SCDHEC will cease ring prophylaxis, as it will no longer be effective.

Treatment. The current allotment of antivirals (joint state/federal purchase and fully federal purchase) to South Carolina by the Department of Health and Human Services is approximately 1,053,000 courses which will be available to treat approximately 25% of the state's population. To maximize the effectiveness of the available antivirals, South Carolina will use these drugs to treat those that are actually affected by the virus in accordance with the Centers for Disease Control and Prevention treatment priority groups. These drugs will be delivered to healthcare providers who will provide a definitive diagnosis of influenza prior to dispensing antivirals to the affected individual.

The SC Emergency Pharmaceutical Stockpile will be stored at the SCDHEC Public Health Preparedness Pharmacy and will be available for distribution once the Secretary of HHS has issued a declaration that the antivirals are a "covered countermeasure." These pharmaceuticals will be delivered by the procedures set forth in the state level SC Strategic National Stockpile (SNS) plan that provides for transport and security. Transportation will be provided thru ESF-1 and the SC Department of Transportation and security will be provided thru ESF-13, ESF-16, ESF-19 and include the SC Law Enforcement Division, SC Highway Patrol, and the SC National Guard. The Regional SNS plans provide for transport and security from the Region Distribution site to the final dispensing site to the affected individuals.

The federal supply of antivirals stored with the US CDC Division of SNS will be requested by the Governor and delivered by the DSNS to the pre-identified SNS Receiving, Staging and Storage site. These drugs will be delivered in the same manner as described above.

Since these antiviral countermeasures will be used to treat affected individuals the following types of healthcare providers have been identified to receive antiviral medications:

1) Hospitals particularly those hospitals with negative pressure rooms and adequate ventilators to treat large numbers of affected individuals. Included in the hospital's number will be treatment courses for patients in any temporary expansion units associated with the hospital.
2) Primary Care Physicians and Centers
    a. Family Practice
    b. Internal Medicine
    c. Pediatricians
    d. Obstetrician/Gynecologists
    e. Primary Healthcare Centers
3) Nursing Homes
4) College Infirmaries

The Regional antiviral distribution plans will identify those healthcare providers who have signed an agreement with DHEC to follow the CDC guidelines for dispensing.

Timeline:

September 1- November 1, 2006
Completion of state level antiviral distribution plan with list of participating healthcare providers. Distribute to Region Public Health Preparedness planners for inclusion in Regional plans.

February 15, 2007
Regions have identified the medical providers within their communities who will be dispensing antivirals to affected individuals.

August 30, 2007
Regions have memorandums of agreement in place with identified medical providers and partners that have agreed to support the plan. Revise state level plan as needed based upon feedback from support partners and Public Health Regions.

PANDEMIC INFLUENZA PLANNING
SELF-ASSESSMENT – STATE PUBLIC HEALTH
PUBLIC HEALTH ROLES AND RESPONSIBILITIES

This self-assessment contains activities that are conducted at the state level, local level, or both. Because the level at which they take place may vary across states, states are asked to determine for each whether the responsibility lies at the state or local level (or both), thus creating a state and a local version of the checklist. States are responsible for returning both the completed state self-assessment, and aggregated results for the local assessment.

Notes:
1. All references to operational plans or planning in the checklist could refer to the State's separate Pandemic Influenza Plan or a component of the State's overall All-Hazards Plan.
2. Direct-funded metropolitan areas (i.e., the District of Columbia, New York City, Los Angeles County, and Chicago) should NOT use this form (i.e., the Self-Assessment-State Public Health form). Instead, they should use the Self-Assessment - Local Public Health form.

Project:	South Carolina
Assessment Completed By:	Beasley, Phyllis A.
Title:	State Pandemic Influenza Response Coordinator
Telephone:	(803) 898-4557
Email Address:	beaslepa@dhec.sc.gov
Date:	

Community Preparedness Leadership and Networking [Preparedness Goal 1—Increase the use and development of interventions known to prevent human illness from chemical, biological, radiological agents, and naturally occurring health threats]

A Pandemic Preparedness Coordinating Committee representing all relevant stakeholders in the jurisdiction and accountable for articulating strategic priorities and overseeing the development and execution of the jurisdiction's operational pandemic plan has been developed.	Completed
The accountability and responsibility for key stakeholders engaged in planning and executing specific components of the operational plan are delineated, and the plan includes timelines, deliverables, and performance measures.	In Progress
It is clear which activities will occur at state, local, or coordinated level.	In Progress
State role in providing guidance and assistance to local/regional level is defined.	In Progress
The operational plan for pandemic influenza response is an integral element of the overall state and local emergency response plan established under Federal Emergency Support Function 8 (ESF8) and compliant with NIMS.	Completed
The operational plan addresses integration of state, local, tribal, territorial, and regional plans across jurisdictional boundaries.	In Progress
Agreements with neighboring jurisdictions are formalized and address communication, mutual aid, and other cross-jurisdictional needs.	In Progress
Legal authorities for executing the operational plan, especially those relevant to case identification, isolation, quarantine, movement restriction, healthcare services, emergency care, and mutual aid, are transparent to all stakeholders.	In Progress
The process for requesting, coordinating, and approving requests for resources to state and federal agencies has been made clear to all stakeholders.	In Progress
An Incident Command System for the pandemic plan that is based on the National Incident Management System has been created.	In Progress
This system has been exercised along with other operational elements of the plan.	In Progress

The authority responsible for declaring a public health emergency at the state and local levels and for officially activating the pandemic influenza response plan has been identified.	Completed
State and local law enforcement personnel who will maintain public order and help implement control measures have been identified.	In Progress
What will constitute a "law enforcement" emergency has been determined and law enforcement officials have been educated so they can pre-plan for their families to sustain themselves during the emergency.	In Progress
Plans are flexible so they can be adapted to the magnitude and severity of the pandemic and to available resources.	In Progress
Provision of psychosocial support services for the community, including parents and their families, and those affected by community containment procedures are addressed.	In Progress
The State Public Health Agency, with animal health sectors (including but not limited to industry, veterinary diagnostic laboratories, state departments of agriculture) have developed an operational plan to prevent, detect and respond to reports of disease in animals as a early warning of threat to human health including: o education of and risk communication to the poultry owning public, especially small operations o a plan for surveillance in birds o disease reporting and data sharing o triggers for action to contain disease within the animal sector o triggers to perform heightened surveillance to detect human illness.	In Progress
Surveillance [HHS Supplement 1. Preparedness Goal 3—Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health. Preparedness Goal 5—Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.]	
Traditional surveillance for seasonal influenza (e.g., virologic, outpatient visits, hospitalization, and mortality) including electronic reporting, is conducted year round.	In Progress
Capacity for rapid identification of unusual influenza strains has been improved by working with federal partners to enhance laboratory-based monitoring of seasonal influenza subtypes.	In Progress
Procedures to implement enhanced surveillance once a pandemic is detected to ensure recognition of the first cases of pandemic virus infection in time to initiate appropriate containment protocols have been developed.	In Progress
Animal and human health surveillance systems are linked and information is routinely shared.	In Progress
Systems to obtain and track information daily during a pandemic on the following items has been developed: o the numbers of newly hospitalized cases o newly quarantined persons, and o hospitals with pandemic influenza cases	In Progress

Public Health and Clinical Laboratories [HHS Supplement 2. Preparedness Goal 3—Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.]	
Surveillance for influenza-like illnesses (ILI) among laboratory personnel working with novel influenza viruses has been instituted.	In Progress
An operational plan to augment the capacity of public health and clinical laboratories to meet the needs of the jurisdiction during a pandemic has been developed.	In Progress
This operational plan has been exercised.	In Progress
The influenza diagnostic testing proficiency and adherence to biosafety containment and biomonitoring protocols is assessed in all public health and clinical laboratories at least annually.	In Progress
Frontline clinicians and laboratory personnel are aware of protocols for safe specimen collection and testing, know how and to whom a potential case of novel influenza should be reported, and know the indications and mechanism for submitting specimens to referral laboratories.	In Progress

Healthcare and Public Health Partners [HHS Supplement 3. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
The role of public health in coordinating with the healthcare sector in delivery of care during a pandemic has been defined.	In Progress
Public health knows what the healthcare sector needs or expects of it before and during a pandemic.	In Progress
The necessary memoranda of agreement/understanding between public health and the healthcare sector are in place.	In Progress
An operational plan for the healthcare sector that addresses the following elements has been developed: o healthcare of persons with influenza during a pandemic, o legal issues that can affect staffing and patient care o continuity of services for other patients, o protection of the healthcare workforce, and o medical supply contingency plans	In Progress
This operational plan has been exercised.	In Progress
All components of the healthcare delivery network (e.g., hospitals, long-term care, home care, emergency care) are included in the operational plan, and the special needs of vulnerable and hard-to-reach patients are addressed.	In Progress
A plan for ensuring real-time situational awareness of patient visits, hospital bed and intensive care needs, medical supply needs, and medical staffing needs during a pandemic has been developed.	In Progress
An operational plan for provision of mortuary services during a pandemic has been developed.	In Progress
The plan for mortuary services has been tested.	In Progress
A current roster of all active and formerly active healthcare personnel available for emergency healthcare services is maintained.	In Progress
What will constitute a medical staffing emergency has been defined.	In Progress
The operational plan to initiate appropriate credentialing of volunteer healthcare personnel (including in-state, out-of-state, international, returning retired, and non-medical volunteers) to meet staffing needs during a pandemic has been exercised.	In Progress
The healthcare facilities in the jurisdiction have exercised a plan for isolating and/or cohorting patients with known or suspected influenza, training clinicians, and supporting the needs for personal protective equipment.	In Progress
The healthcare facilities in the jurisdiction have exercised an operational plan to initiate, support, and enforce quarantine of potentially exposed healthcare personnel.	In Progress

Continued on the Next Page

PANDEMIC INFLUENZA PLANNING
SELF-ASSESSMENT – STATE PUBLIC HEALTH
PUBLIC HEALTH ROLES AND RESPONSIBILITIES

This self-assessment contains activities that are conducted at the state level, local level, or both. Because the level at which they take pla may vary across states, states are asked to determine for each whether the responsibility lies at the state or local level (or both), thus creating a state and a local version of the checklist. States are responsible for returning both the completed state self-assessment, and aggregated results for the local assessment.

Notes:
1. All references to operational plans or planning in the checklist could refer to the State's separate Pandemic Influenza Plan or a component of the State's overall All-Hazards Plan.
2. Direct-funded metropolitan areas (i.e., the District of Columbia, New York City, Los Angeles County, and Chicago) should NOT use this form (i.e., the Self-Assessment-State Public Health form). Instead, they should use the Self-Assessment-Local Public Health form.

Infection Control and Clinical Guidelines [HHS Supplements 4 & 5. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
Messages have been crafted to help educate healthcare providers about novel and pandemic influenza, and infection control guidelines.	In Progress
An operational plan has been developed to regularly update providers as the influenza pandemic unfolds.	In Progress
This plan has been tested.	In Progress
Vaccine Distribution and Use [HHS Supplement 6. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
An operational plan for vaccine distribution, use, and monitoring which covers the following elements has been developed: o Plan for vaccinating occupationally-defined and other priority groups o Storage o Security during transport, storage, and administration o Cold chain requirements o Location of vaccination o Personnel who will vaccinate o Availability of necessary equipment and supplies o Training requirements for involved personnel. o Tracking number and priority of vaccine recipients o Vaccine safety monitoring o Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization) o Address needs of vulnerable populations	In Progress
This operational plan has been tested	In Progress
Written agreements document the commitments of participating personnel and organizations in the vaccination operational plan.	In Progress
Citizens are informed and know in advance where they will be vaccinated.	In Progress

Antiviral Drug Distribution and Use [HHS Supplement 7. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
Plans for distribution and use of antiviral drugs during a pandemic via the Strategic National Stockpile (SNS), as appropriate, to healthcare facilities that will administer them to priority groups have been developed. These plans cover: o Storage o Security o Distribution o Tracking o Adverse events monitoring o Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)	In Progress
The plans have been tested.	In Progress
Community Disease Control and Prevention (including managing travel-related risk of disease transmission) [HHS Supplements 8 & 9. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
An operational plan to investigate and contain potential cases or local outbreaks of influenza potentially caused by a novel or pandemic strain has been developed.	In Progress
This plan has been exercised.	In Progress
A containment operational plan that delineates the following items has been developed: o the criteria for isolation and quarantine, o the procedures and legal authorities for implementing and enforcing these containment measures, and o the methods that will be used to support, service, and monitor those affected by these containment measures in healthcare facilities, other	In Progress
This plan has been exercised.	In Progress
An operational plan to implement various levels of movement restrictions within, to, and from the jurisdiction.	In Progress
This plan has been exercised.	In Progress
Citizens have been informed in advance what containment procedures may be used in the community.	In Progress

Public Health Communications [HHS Supplement 10. Preparedness Goal 4—Improve the timeliness and accuracy of communications regarding threats to the public's health.]	
Readiness to meet communications needs in preparation for an influenza pandemic has been assessed, including regular review and updating of communications plans.	In Progress
Plans for coordinating emergency communication activities with private industry, education, and non-profit partners (e.g., local Red Cross chapters) have been developed.	In Progress
Lead subject-specific spokespersons have been identified and trained.	Completed
Public health communications staff have been provided with training on risk communications for use during an influenza pandemic.	Completed
Up-to-date communications contacts of key stakeholders are maintained.	Completed
Plan for providing regular updates to key stakeholders as the pandemic unfolds has been developed.	Completed
This plan has been tested.	In Progress
Community resources, such as hotlines and websites to respond to local questions from the public and professional groups have been developed and are maintained.	In Progress
The Health Alert Network in the jurisdiction reaches at least 80% of all practicing licensed frontline healthcare personnel and links via the communications network to other pandemic responders.	Completed
The appropriate local health authorities have access to EPI-X and are trained in its use.	Completed
Redundant communications systems/channels that allow for expedited transmission and receipt of information are in place.	Completed
Workforce Support: Psychosocial Considerations and Information Needs [HHS Supplement 11. Preparedness Goal 6—Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.]	
A continuity of operations plan for essential department services, including contingency planning for increasing public health workforce in response to absenteeism among health department staff and stakeholder groups that have key responsibilities under a community's response plan has been developed.	In Progress
A plan for ensuring availability of psychosocial support services (including educational and training materials) for employees who participate in or provide support for the response to public health emergencies such as influenza pandemics has been developed.	In Progress
THE END	

PANDEMIC INFLUENZA PLANNING
SELF-ASSESSMENT – LOCAL PUBLIC HEALTH TOTALS

PUBLIC HEALTH ROLES AND RESPONSIBILITIES

This self-assessment contains activities that are conducted at the state level, local level, or both. Because the level at which they take place may vary across states, states are asked to determine for each whether the responsibility lies at the state or local level (or both), thus creating a state and a local version of the checklist. States are responsible for returning both the completed state self-assessment, and aggregated results for the local assessment.

Note: You should include the results of the assessments by direct-funded metropolitan areas (i.e., the District of Columbia, New York City, Los Angeles County, and Chicago) on this form.

Infection Control and Clinical Guidelines [HHS Pandemic Influenza Supplements 4 & 5. Pandemic Influenza Preparedness Goal 6 - Decrease the time needed to provide countermeasures and health guidance to those affected by the threat of pandemic influenza.]

	Completed		In Process		Not Started		N/A-State PH Responsibility	
Elements	**#**	**% of Total**	**#**	**% of Total**	**#**	**% of Total**	**#**	**% of Total**
The proportion of a State's population served by a Local Public Health Agency that has crafted messages to help educate healthcare providers about novel and pandemic influenza, and infection control guidelines.	217,813	5%	2,806,961	67%	312,770	7%	860,523	20%
The proportion of a State's population served by a Local Public Health Agency that has developed an operational plan to regularly update providers as the influenza pandemic unfolds.	217,813	5%	2,806,961	67%	1,173,293	28%		0%
The proportion of a State's population served by a Local Public Health Agency that has tested its operational plan to regularly update providers as the influenza pandemic unfolds.	217,813	5%	1,212,920	29%	2,767,334	66%		0%

Vaccine Distribution and Use [HHS Pandemic Influenza Supplement 6. Pandemic Influenza Preparedness Goal 6 - Decrease the time needed to provide countermeasures and health guidance to those affected by the threat of pandemic influenza.]

	Completed		In Process		Not Started		N/A-State PH Responsibility	
Elements	**#**	**% of Total**	**#**	**% of Total**	**#**	**% of Total**	**#**	**% of Total**

The proportion of a State's population served by a Local Public Health Agency that has developed an operational plan for vaccine distribution, use, and monitoring which covers the following elements: o Plan for vaccinating occupationally-defined and other priority groups o Storage o Security during transport, storage, and administration o Cold chain requirements o Location of vaccination o Personnel who will vaccinate o Availability of necessary equipment and supplies o Training requirements for involved personnel. o Tracking number and priority of vaccine recipients o Vaccine safety monitoring o Contingency plan for administration under IND or EUA (Investigational o New Drug or Emergency Use Authorization) o Address needs of vulnerable populations o Having or having access to information systems to support tracking and allocation of vaccine distribution, use and monitoring		0%	4,198,067	100%	0	0%		0%
The proportion of a State's population served by a Local Public Health Agency that has tested its operational plan for vaccine distribution, use, and monitoring.		0%	2,754,110	66%	1,443,957	34%		0%
The proportion of a State's population served by a Local Public Health Agency that has written agreements that document the commitments of participating personnel and organizations in The Local Public Health Agency 's vaccination operational plan.		0%	3,119,731	74%	1,078,336	26%		0%
The proportion of a State's population served by a Local Public Health Agency that has plans to inform the public--including businesses, education and faith-based communities— about preparedness plans and activities they can undertake to mitigate the effects of pandemic influenza (including information about vaccination as it becomes available).		0%	4,198,067	100%	0	0%		0%

Antiviral Drug Distribution and Use [HHS Pandemic Influenza Supplement 7. Pandemic Influenza Preparedness Goal 6 - Decrease the time needed to provide countermeasures and health guidanc to those affected by the threat of pandemic influenza.]

	Completed	In Process	Not Started	N/A-State PH Responsibility

Elements	#	% of Population	#	% of Population	#	% of Population	#	% of Population
The proportion of a State's population served by a Local Public Health Agency that has developed plans for distribution and use of antiviral drugs during a pandemic via the Strategic National Stockpile (SNS), as appropriate, to healthcare facilities that will administer them to priority groups. These plans cover: o Storage o Security o Security o Distribution o Tracking o Adverse events monitoring o Contingency plan for administration under IND or EUA (Investigational New Drug or Emergency Use Authorization)		0%	3,614,633	86%	583,434	14%		0%
The proportion of a State's population served by a Local Public Health Agency that has tested its plans for distribution and use of antiviral drugs during a pandemic.	907,477	22%	460,449	11%	2,830,141	67%		0%

Community Disease Control and Prevention (including managing travel-related risk of disease transmission) [HHS Pandemic Influenza Supplements 8 & 9. Pandemic Influenza Preparedness Goal 6 - Decrease the time needed to provide countermeasures and health guidance to those affected by the threat of pandemic influenza].

	Completed		In Process		Not Started		N/A-State PH Responsibility	
Elements	#	% of Population	#	% of Population	#	% of Population	#	% of Population
The proportion of a State's population served by Local Public Health Agency that has developed an operational plan to investigate and contain potential cases or local outbreaks of influenza potentially caused by a novel or pandemic strain.		0%	3,885,297	93%	312,770	7%		0%
The proportion of a State's population served by Local Public Health Agency that has exercised its operational plan to investigate and contain potential cases or local outbreaks of influenza potentially caused by a novel or pandemic strain.		0%	1,673,369	40%	2,524,698	60%		0%

The proportion of a State's population served by a Local Public Health Agency that has developed a containment operational plan that delineates the following items: o the criteria for isolation and quarantine, o the procedures and legal authorities for implementing and enforcing these containment measures, o the methods that will be used to provide psychosocial support, continuity of essential services, and appropriate monitoring of those affected by these containment measures in healthcare facilities, other residential facilities, homes, community facilities, and other settings, and o having or having access to information systems that support the reporting, investigation, control, and prevention of influenza cases.		0%	3,885,297	93%	312,770	7%		0%
The proportion of a State's population served by a Local Public Health Agency has exercised its containment operational plan.		0%	1,010,607	24%	3,187,460	76%		0%
The number of population served by a Local Public Health Agency that has an operational plan to implement various levels of movement restrictions within, to, and from the jurisdiction.		0%	2,223,527	53%	1,974,540	47%		0%
The proportion of a State's population served by a Local Public Health Agency that has exercised its plan to implement various levels of movement restrictions within, to, and from the jurisdiction.	460,449	11%	1,457,635	35%	2,279,983	54%		0%
The proportion of a State's population served by a Local Public Health Agency that has informed the public in advance what containment procedures may be used in the community.		0%	2,223,527	53%	1,974,540	47%		0%

Public Health Communications [HHS Pandemic Influenza Supplement 10. Pandemic Influenza Preparedness Goal 4 - Improve the timeliness and accuracy of communications regarding the threat posed by an influenza outbreak with pandemic potential.]

	Completed		In Process		Not Started		N/A-State PH Responsibility	
Elements	#	% of Population	#	% of Population	#	% of Population	#	% of Population
The proportion of a State's population served by a Local Public Health Agency that has assessed readiness to meet communications needs in preparation for an influenza pandemic, including regular review and updating of communications plans.		0%	3,885,297	93%	312,770	7%		0%
The proportion of a State's population served by a Local Public Health Agency that has developed plans for coordinating emergency communication activities with private industry, education, and non-profit partners (e.g., local Red Cross chapters).		0%	3,614,633	86%	583,434	14%		0%

The proportion of a State's population served by a Local Public Health Agency that has identified and trained lead subject-specific spokespersons.	1,125,290	27%	3,072,777	73%	0	0%		0%
The proportion of a State's population served by a Local Public Health Agency that has provided public health communications staff with training on risk communications for use during an influenza pandemic.	1,125,290	27%	2,760,007	66%	312,770	7%		0%
The proportion of a State's population served by a Local Public Health Agency that maintains up-to-date communications contacts of key stakeholders.	1,898,509	45%	2,299,558	55%	0	0%		0%
The proportion of a State's population served by the Local Public Health Agency that has developed a plan for providing regular updates to key stakeholders as the pandemic unfolds.	1,125,290	27%	3,072,779	73%	0	0%		0%
The proportion of a State's population served by a Local Public Health Agency that has exercised its plan for providing regular updates to key stakeholders as the pandemic unfolds.		0%	2,533,892	60%	1,664,175	40%		0%
The proportion of a State's population served by a Local Public Health Agency that has developed and maintains community resources, such as hotlines and websites to respond to local questions from the public and professional groups.	678,262	16%	3,207,035	76%	0	0%	312,770	7%
The proportion of a State's population served by the Health Alert Network in The Local Public Health Agency jurisdiction that reaches at least 80% of all practicing licensed frontline healthcare personnel and links via the communications network to other pandemic responders.	3,091,377	74%	1,106,690	26%	0	0%		0%
The proportion of a State's population served by a Local Public Health Agency that has the appropriate number of local health authorities with access to EPI-X who are also trained in its use.	1,078,336	26%	2,814,288	67%	305,443	7%		0%
The proportion of a State's population served by a Local Public Health Agency that has established redundant communications systems/channels that allow for expedited transmission and receipt of information.	907,477	22%	3,290,590	78%	0	0%		0%

Workforce Support: Psychosocial Considerations and Information Needs [HHS Pandemic Influenza Supplement 11. Pandemic Influenza Preparedness Goal 6 - Decrease the time needed to provide countermeasures and health guidance to those affected by the threat of pandemic influenza.]

	Completed		In Process		Not Started		N/A-State PH Responsibility	
Elements	**#**	**% of Population**	**#**	**% of Population**	**#**	**% of Population**	**#**	**% of Population**

The proportion of a State's population served by a Local Public Health Agency that has developed a continuity of operations plan for essential department services, including contingency planning for increasing public health workforce in response to absenteeism among health department staff and stakeholder groups that have key responsibilities under a community's response plan.	896,204	21%	2,441,340	58%	860,523	20%		0%
The proportion of a State's population served by a Local Public Health Agency that has developed a plan for ensuring availability of psychosocial support services (including educational and training materials) for employees who participate in or provide support for the response to public health emergencies such as influenza pandemics.	896,204	21%	3,301,863	79%	0	0%		0%
THE END								