

December 15, 2005

Pandemic Influenza

A sense of urgency needed to combat a growing threat

As the threat of avian influenza and a global pandemic grows, world political, business and public health leaders are beginning the long and complex work that will be needed to confront this challenge. Recently, the Bush Administration met with state and homeland security officials in Washington, D.C., to establish a dialogue concerning pandemic planning. The administration announced that it would visit every state in the country over the next 120 days.

While the impact of a possible influenza pandemic is unknown, many experts believe it would be severe in terms of loss of life, global economic disruption, social upheaval and political instability. It would be the first pandemic in the age of globalization. Its spread would be aided by international trade and travel, and attempts to mitigate it would be hindered by the failure of the international supply chains that provide basic medicines and medical supplies.

These recent efforts and heightened awareness are positive signs, but the risk of a pandemic remains both in the short and long term. Ongoing and sustained attention by the public and private sector must be paid to this threat if the worst-case scenario is to be avoided or the impact minimized.

Current state of avian influenza

The number of confirmed human cases of H5N1 avian influenza is currently 137 with 70 cases resulting in fatalities. The confirmed human cases to date have occurred in Southeast Asia, but, recently H5N1 (the avian flu virus currently circulating) has been identified in poultry and migratory birds in Russia, Kazakhstan, Mongolia, Turkey, Romania, Croatia and Ukraine.

In Ukraine, the emergence of H5N2 avian influenza has sparked a massive national response in the form of a cull of domestic poultry in an attempt to contain or eliminate the threat. The program was initiated in response to the death of more than 2,500 birds in the period of a few hours. The Emergency Ministry of Ukraine seized more than 22,000 birds in house-to-house checks of villages sealed off by exclusion zones established upon the appearance of the danger

As the disease spreads among birds world leaders and health experts have come to believe that it is only a matter of time before an avian flu virus (even if it is not the current H5N1 strain) acquires the ability to be transmitted from human to human. In light of the consequences that may occur if this takes place the recent meeting in Washington and other international conferences are signs that the world community is beginning to appreciate the gravity of the threat and starting to plan for the possibility of an influenza epidemic.

United States action

Secretary of Health and Human Service Michael O. Leavitt recently met with approximately 200 state and federal health and emergency planning officials to announce plans to visit every state in the country over the next 120 days and to receive feedback from state officials regarding preparation for a possible pandemic.

The meeting is a positive step, but there remain troubling issues and questions about pandemic preparedness. The state officials noted that demand for a vaccine during a pandemic would soar far beyond the nation's needs each winter with season flu, yet throughout the country, doctors report an inability to acquire the vaccine. One state official reported that her state recently obtained 36,000 doses of seasonal flu vaccine but had orders from doctors for 90,000.

Recently, the Centers for Disease Control and Prevention reported that this year's supply of the flu vaccine will reach 80 million doses by the end of December but spot shortages of the vaccine have been reported in many states. Secretary Leavitt stressed the need to increase vaccine production and to revitalize the flu vaccine industry.

State and Local government action needed

Pandemics occur globally but their effects are felt at the local level. Given this, states and localities must plan broadly for a pandemic and communicate with
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businesses, the health community and public officials from around the nation and world to accomplish what is needed to prevent or mitigate an influenza pandemic.

States should establish a pandemic preparedness coordinating committee. This committee should include all relevant parties and industries in the state (including governments, public health, healthcare, emergency response, agriculture, education, business, communication and private citizens). Each state should clarify which activities will be performed at the state, local or coordinated level and indicate what role the state will have in providing guidance and assistance. States should also assure that the operational plan for pandemic influenza response is an integral element of the overall state and local emergency plans.

State governments should create and test plans for the operation of communication systems. They should identify the individual response for declaring a public health emergency and the individual who will be responsible for activating the pandemic influenza response plan.

Year-round surveillance for seasonal influenza should be conducted. States should improve capacity for rapid identification of unusual influenza strains by working with federal partners to enhance laboratory-based monitoring. States should also be prepared to obtain and track information daily during a pandemic on the numbers and location of newly hospitalized cases, newly quarantined persons and hospitals with pandemic influenza cases and should use these reports to determine priorities among community outreach and education efforts.

The operational plan for the healthcare sector must be tested. The testing should address the issues of surge capacity of healthcare services, workforce and supplies needed to meet the needs of the state in the event of a pandemic. States should also maintain a current roster of all active and for-

merly active healthcare personnel available for emergency healthcare services.

Communication with the healthcare sector must be developed and maintained. States should craft messages to educate healthcare providers about pandemic influenza and should develop and test a plan to regularly update providers as it unfolds. They should also provide public health communications staff with training on risk communications for use during an influenza pandemic. Community resources such as hotlines and websites should also be created to respond to local questions from public and professional groups.

States should work with healthcare partners to develop state-based plans for vaccine distribution, use and monitoring and for communication of vaccine status. They should ensure that their operational plans establish procedures for tracking the number and priority of vaccine recipients, where and by whom vaccination will be given, the security and logistical support for points of distribution and the training needed for the personnel involved. Citizens should also be informed of all relevant vaccine information.

Plans for distribution and use of antiviral drugs during a pandemic should be designed. These operational plans should be tested and should address procurement, storage, security, distribution and monitoring actions necessary to assure access to these treatments during a pandemic.

Containment plans must also be developed and tested. States should define procedures for isolation and quarantine, the procedures and legal authorities for implementing and enforcing the containment measures (such as school closures, canceling public transportation and other movement restrictions) and the methods that will be used to support, service and monitor those affected by these containment measures in healthcare and residential facilities.

Continuity plans should be created. States should develop a continuity of operations plan for essential health department services, including contingency

planning for increasing the public health workforce in response to absenteeism among health department staff and key individuals. Availability of social support (like education) should also be ensured for individuals who provide support or participate in the response to public health emergencies like an influenza pandemic.

The Business Community's Role

As one expert points out, the private sector must take the responsibility to protect itself, its employees and its clients. Businesses, especially larger companies, should not rely solely on the government to provide assistance in the event of a pandemic. Businesses will play a key role in protecting employees' and clients' health and safety as well as limiting the negative impact to the economy and society as a whole. There are a number of specific measures that businesses can take to prepare for a pandemic.

Plan for the impact of a pandemic on business.

Identify a pandemic coordinator or team with defined roles and responsibilities for preparedness and response planning. The planning should include input from key employees. Identify essential personnel and critical supplies, materials and services required to maintain operations by location and function during a pandemic. Train and prepare an ancillary workforce and develop and plan for scenarios likely to result in an increase or decrease in demand for products or services.

Determine the potential impact of a pandemic on company financials and on business related domestic and international travel. Find current and reliable information from public health and emergency management officials and maintain communication with them. Establish an emergency communications plan and revise it periodically. This plan should include key contacts, chain of communication and processes for tracking and communicating business and employee status. Implement an exercise/drill to test your plan and revise it periodically.

Plan for the impact on employees and clients.

Forecast and plan for employee absences during a pandemic due to personal or family illness, business closures or public transportation closures. Provide employees regarding annual influenza vaccinations. Evaluate employee access to and availability of healthcare services during a pandemic. Examine employee access to and availability of social services during a pandemic. Identify employees and clients with special needs and incorporate those needs into the preparedness plan.

Establish policies to be implemented during a pandemic.

Establish policies for employee compensation and sick-leave absences specific to a pandemic, including policies on when a previously ill individual is no longer infectious and can return to work. Create policies for flexible worksites and flexible work hours. Establish policies for preventing influenza spread at work (e.g. promoting frequent hand washing). Establish policies for individuals who have been exposed to pandemic influenza and for restricting travel to affected geographic areas. Set up authorities, triggers and procedures for activating and terminating the company's pandemic response plan.

Allocate resources to protect employees and clients during a pandemic.

Provide sufficient and accessible infection control supplies (e.g. hand hygiene products, tissues and receptacles) in all business locations. Enhance communications and information technology infrastructures as needed to support employee telecommuting and remote client access. Ensure availability of medical consultation for emergency response.

Communicate with and educate employees.

Develop and distribute information covering the fundamental facts of a pandemic such as signs and symptoms of influenza, methods of transmission, personal and family protection and response strategies. Anticipate employee fear and anxiety

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and plan communications to combat rumors and misinformation. Distribute information to employees about the pandemic preparedness and response plan. Provide information for the at-home care of ill employees and family members. Develop methods (e.g. hotlines or websites) for communicating pandemic status and actions to employees and clients in a consistent and timely manner. Identify community resources for timely and accurate pandemic information.

Coordinate with external organizations and assist community. Work with insurers, health plans and local health care facilities to share pandemic plans and to understand their capabilities and plans. Collaborate with federal, state and local health agencies and emergency responders to participate in their planning process. Share best practices with other businesses to improve community response efforts.

Consequences of failing to act

In 1968, the Hong Kong flu killed approximately 1 million people worldwide. There were two other pandemics in the 20th century, the 1957 Asian flu, which killed more than 2 million, and the Spanish flu of 1918 with approximately 50 million deaths.

Studies cited by the Centers for Disease Control and Prevention indicate that a "medium-level" pandemic would cause 89,000 to 207,000 deaths in the United States, 314,000 to 734,000 hospitalizations, 18 million to 42 million outpatient visits and another 20 million to 27 million people ill. World estimates for loss of life and economic loss vary widely with some experts admitting that trying to give specific numbers amounts to little more than guessing. A worst-case scenario would no doubt include extremely high casualty figures.

Influenza pandemics are not singular events, like hurricanes, earthquakes or terrorist attacks. Pandemics unfold over time, re-circulate in waves, continually mutate and persist for months

or years. Planning must appreciate the difference between emergency response and long term disastrous outcomes, including shortages of food, medical supplies, essential products and business equipment. Few cities, states, and nations have thought this through and developed a clear understanding of which individuals will be in charge of the various aspects of pandemic response.

In the short term, planning must emphasize organizational issues, chains of command, international cooperation and supply problems for anti-flu drugs and other critical supplies such as hospital equipment and general medication

For the medium term, investments must be made in diagnostics, vaccines and antiviral drugs. Tabletop exercises and computer modeling on an international level should provide planners with a more detailed understanding of the weaknesses of the current systems.

In the long term, investments in research and development of new flu vaccines and investments in ecological improvements in Asia may decrease the probability of any given wild bird virus crossing to domestic animals and to humans.

The threat of a pandemic demands that the public and private sectors work together. Both sectors must not fall victim to complacency and must coordinate on a day-to-day basis to prepare for the worst case scenario. Creation of plans must be given the highest priority and should include urgent periodic review, refinement and testing. The public deserves nothing less.



The Lipman Report Editors