

PANDEMIC INFLUENZA PLAN BRIEFING

Executive Summary

Avian flu is not the same thing as pandemic influenza. While health officials are concerned that the H5N1 avian flu that is spreading in many countries has the potential to mutate into a strain that can be passed easily from person-to-person and cause a pandemic, it has not done so yet. **It may never do so at all.**

If H5N1 avian flu arrives in our state, the New York State Department of Agriculture and Department of Environmental Conservation will take the lead in response.

Whether H5N1 is the next pandemic flu strain, **there will be another pandemic sooner or later.** There were three pandemics during the 20th century, and some experts believe we are overdue for another.

We do not know when a pandemic will occur, but we do know that getting prepared for a pandemic will require cooperation among all segments of society. **Everyone will have a response role.**

The NYSDOH plan is not the “New York State” pandemic influenza plan. Rather, it will become part of an overall state strategy to combat pandemic influenza.

The plan is based on the best currently available scientific knowledge **but will continually evolve** as the pandemic threat develops and more event-specific information becomes available.

Pandemic planning is occurring in close collaboration with the state’s Disaster Preparedness Commission and Office of Homeland Security. The goal is to develop an overall state strategy that will best protect the health of New Yorkers and our state’s critical infrastructure to ensure continuity of operations, in the event of a pandemic.

NYSEMO and NYSDOH will provide planning guidance to county emergency management offices and county health departments to support their efforts in developing local plans.

As part of federal (HRSA) grant deliverables, hospitals have been directed to prepare pandemic influenza plans; NYSDOH also has begun to work with the other categories of healthcare facilities/agencies and their provider associations to assist them in planning for pandemic flu.

The public has an equally critical role in pandemic preparedness.

Preparing for and responding to a pandemic is not something that state or local health officials or your local elected leaders can do alone. Pandemic planning must be everybody's business.

Although traditional infection control strategies such as use of vaccine and antivirals would be limited in the early stages of a pandemic, other strategies that can help reduce the spread of germs are available to every one of us.

- Cover your cough or sneeze
- Clean your hands
- Stay home if you're sick

We can make doing these things a habit right now, and model the behavior for our children.

We are also encouraging New Yorkers to have at least a two-week supply of essential household items on hand. This is important not just in case of pandemic flu but to be prepared for any number of emergencies that can and do occur regularly—for instance, weather emergencies and extended power outages.

While nobody has all the answers about how best to respond to pandemic influenza, it is crucial to ask the questions, identify the challenges and work together to overcome them. This plan is a strong start. It provides a framework for pandemic response that we will build on with our public and private sector partners in the days, weeks and months to come.

What a pandemic is and why we're concerned

A pandemic is a worldwide epidemic of influenza. Pandemics happen when a novel influenza virus emerges to which people have little or no immunity. Although no one knows for sure when the next pandemic will occur, or what new influenza virus will cause a pandemic, experts agree that the potential impact could be enormous.

An influenza pandemic could circle the globe rapidly, and over two or three months, cause millions to become ill and die, seriously straining healthcare systems and affecting the ability of government and the private sector to provide essential services. *In light of that possibility, health officials at every level—international, national, state and local—are making plans to respond vigorously on all fronts, including here in New York.*

At present, the World Health Organization and federal health officials are closely watching the **H5N1** highly pathogenic avian influenza (**HPAI**) virus that is prevalent throughout Asia and parts of Europe and Africa.

Even though it primarily affects birds, there is significant concern that the virus could change to a type that spreads more easily from person to person, producing a pandemic.

However, avian flu and pandemic flu are not one and the same. If H5N1 avian flu arrives in the United States in its present form, it will not signal the start of a pandemic.

Highly Pathogenic Avian Influenza in Birds

Avian influenza is an infectious disease of birds caused by type A strains of the influenza virus. The disease occurs worldwide. While all birds are thought to be susceptible to infection with avian influenza viruses, many wild bird species carry these viruses with no apparent signs of harm. Other bird species, including domestic poultry, develop disease when infected with avian influenza viruses. In poultry, the viruses cause two distinctly different forms of disease – one common and mild, the other rare and highly lethal.

To date, all outbreaks of the highly pathogenic form of avian influenza have been caused by viruses of the H5 and H7 subtypes. Not all virus strains of the H5 and H7 subtypes are highly pathogenic, but most are thought to have the potential to become so.

Apart from being highly contagious among poultry, avian influenza viruses are readily transmitted from farm to farm by the movement of live birds, people (especially when shoes and other clothing are contaminated), and contaminated vehicles, equipment, feed, and cages. Highly pathogenic viruses can survive for long periods in the environment, especially when temperatures are low.

The Role of Migratory Birds

Scientists are increasingly convinced that at least some migratory waterfowl are now carrying the H5N1 virus in its highly pathogenic form, sometimes over long distances, and introducing the virus to poultry flocks in areas that lie along their migratory routes.

Countries Affected by Outbreaks in Birds

In summary, the following countries have had confirmed outbreaks on H5N1 in birds:

Republic of Korea,
Viet Nam,
Japan,
Thailand,
Cambodia,
Lao People's Democratic Republic,
Indonesia,
China,
Malaysia,
Russian Federation,
Kazakhstan,
Mongolia,
Turkey
Romania,
Croatia,
Ukraine,
Iraq,
Nigeria,
Azerbaijan,
Bulgaria,
Greece,
Italy,
Slovenia,
Iran,
Austria,
Germany,
Egypt,
India, and
France

H5N1 in Humans

Of all influenza viruses that circulate in birds, the H5N1 virus is of greatest present concern for human health for two main reasons.

First, the H5N1 virus has caused by far the greatest number of human cases of very severe disease and the greatest number of deaths. It has crossed the species barrier to infect humans on at least three occasions in recent years: in Hong Kong in 1997 (18 cases with six deaths), in Hong Kong in 2003 (two cases with one death) and in the current outbreaks that began in December 2003 and were first recognized in January 2004.

All evidence to date indicates that close contact with dead or sick birds is the principal source of human infection with the H5N1 virus. Despite the infection of tens of millions of poultry over large geographical areas since mid-2003, fewer than 200 human cases have been laboratory confirmed. Most cases have occurred in rural households where small flocks of poultry are kept.

Countries with Human Cases

To date, human cases have been reported in seven countries: Cambodia, China, Indonesia, Iraq, Thailand, Turkey, and Viet Nam. Altogether, more than half of the laboratory-confirmed cases have been fatal.

For human health, experience elsewhere over the past two years has shown that the greatest risk of cases arises when the virus becomes established in small backyard flocks, which allow continuing opportunities for close human contact, exposures, and infections to occur.

H5N1's Potential to Cause the Next Influenza Pandemic

While it is impossible to know for sure, experts are concerned that the H5N1 virus – if given enough opportunities – will develop the characteristics it needs to start another influenza pandemic. The virus has met all prerequisites for the start of a pandemic except for an ability to spread efficiently and sustainably among humans. While H5N1 is presently the virus of greatest concern, the possibility that other avian influenza viruses, known to infect humans, might cause a pandemic cannot be ruled out.

New York State's Overall Pandemic Influenza Strategy

The NYSDOH pandemic plan is not the “New York State” pandemic influenza plan. Rather, it will become part of an overall state strategy to combat pandemic influenza.

The New York State Emergency Management Office (NYSEMO) as the coordinating agency for the Disaster Preparedness Commission is heading an effort to collect input from all state agencies and other public and private sector partners to develop a pandemic influenza annex to the New York State Comprehensive Emergency Management Plan.

State pandemic planning is occurring in close collaboration with NYSDOH, the state's Disaster Preparedness Commission and Office of Homeland Security. The goal is to develop an overall state strategy that will best protect the health of New Yorkers and our state's critical infrastructure to ensure continuity of operations, in the event of a pandemic.

The State pandemic plan will address how **state agencies** will support the NYSDOH response, as well as the challenges of sustaining infrastructure, essential services and the economy in a severe pandemic—in other words, how to keep society functioning in a global disease epidemic that spans many months. NYSEMO and NYSDOH will provide planning guidance to county emergency management offices and county health department to support their efforts in developing local plans.

As part of federal (HRSA) grant deliverables, **hospitals** have been directed to prepare pandemic influenza plans; NYSDOH also has begun to work with the other categories of healthcare facilities/agencies and their provider associations to assist them in planning for pandemic flu.

During the past several weeks, NYSDOH has conducted a series of meetings with **key partner organizations** including Disaster Preparedness Commission agencies representatives; the NYS Association of County Health Officials; representatives of the healthcare industry including hospitals, long term care, and home health care organizations; representatives of health plans; and members of the Infrastructure Security Advisory Committee—representing public and private partners tasked with protecting critical business sectors. Outreach also has been conducted with the Business Council of NYS.

An **Interagency Taskforce on Influenza Preparedness** is being formed by the New York State Disaster Preparedness Commission. The Taskforce will delineate agency roles and responsibilities to implement the State's Pandemic Influenza Plan and ensure each agency has a plan for continuity of operations during a pandemic.

When a pandemic occurs, the Governor may activate the Taskforce after consultations with NYSDOH and agency representatives of the Disaster Preparedness Commission. If a decision is made to activate, the State Emergency Management Office (SEMO) will coordinate the taskforce with NYSDOH as the lead agency.

NYSDOH's Pandemic Influenza Plan

The New York State Department of Health Pandemic Influenza Plan parallels the recently announced national strategy for pandemic influenza, while also addressing New York State's unique characteristics such as our diverse population, our position as an international border state, and the fact that we welcome so many international visitors. The plan focuses on health implications of an influenza pandemic. It is important to note that this version of the NYSDOH plan reflects the currently available scientific knowledge and data regarding the potential for an influenza pandemic, the expected ramifications on New Yorkers, and the most effective strategies and tactics to support our response.

The plan will continually evolve as the pandemic threat unfolds, and as the State and its partners enhance their preparedness.

The plan suggests pandemic preparedness and response strategies for the State Health Department, local health departments, health care facilities and key community partners.

It contains 13 sections, including guidance on clinical treatment protocols, measures to control disease transmission, and consequence management.

These include: Infection control procedures in health care facilities and in the workplace; how we would conduct disease surveillance and manage data; how we would prioritize scarce vaccine and antiviral medications and treat patients who present with pandemic influenza; how we would respond to the spread of pandemic influenza by travelers; things we might do in community settings to reduce disease transmission, such as close schools or limit public gatherings; how we would communicate important information to the public as a pandemic unfolds.

One of the most important parts of the plan is educating members of the public about their own critical role. **It cannot be stressed strongly enough that in a severe pandemic, actions of individuals, businesses and community organizations, as much as those of government, will greatly determine the outcome.**

In the event of a pandemic, people would be urged to help reduce influenza transmission by being diligent about hygiene (washing hands frequently, covering their cough, disinfecting telephones, desktops and other surfaces that people frequently touch). It would also be crucial for individuals with flu-like symptoms to refrain from going to work, school or anywhere else they might spread germs.

New Yorkers should stockpile at least a two-week supply of non-perishable food, water, medications and essential household items to avoid having to go out in public if social distancing is recommended.

NYSDOH's Pandemic Flu Plan Section by Section

Command and Control

- Outlines roles, command structure, and decision-making process.
- Incorporates pandemic plan with New York State's Comprehensive Emergency Management Plan.
- Identifies and addresses legal issues.
- Ensures key stakeholders are informed about necessary infrastructure and resources needed to respond and support essential services.
- Calls for establishment of an Interagency Task Force on Pandemic Preparedness.

Surveillance and Laboratory Diagnostics

- Updates surveillance guidelines for local health departments.
- Addresses epidemiologic surge capacity.
- Addresses laboratory surge capacity and delineates laboratory testing algorithms.

Healthcare Planning

- Outlines hospital planning for responding to a pandemic, including:
 - Communications.
 - Education and training.
 - Occupational health.
 - Hospital triage.
 - Hospital surge capacity.
- Addresses roles of long-term care facilities, home health agencies, emergency medical services, triage centers, primary care providers, and volunteers.
- Addresses mass mortality issues.
- Delineates system for tracking hospital resources.

Infection Control

- Delineates infection control guidelines, including:
 - Management of infectious patients.
 - Infection control practices for healthcare workers.
 - Use of personal protective equipment (PPE), patient care equipment.
 - Disinfection procedures.
 - Occupational health issues with guidance for healthcare settings.

Clinical Guidelines

- Provides guidance for the evaluation and management of patients with possible novel influenza.
- Delineates clinical presentation of pandemic influenza cases.
- Describes procedures for laboratory testing.
- Describes protocols for treatment with antiviral medications.
- Describes protocols for treatment of community-acquired pneumonia.

Vaccine Procurement, Distribution and Use

- Outlines process for prioritization of vaccine.
- Describes a strategy for vaccine acquisition and delivery and development of a system to track supplies and adverse events.
- Describes plans for conducting vaccination clinics, as vaccine becomes available.

Antiviral Procurement, Distribution and Use

- Outlines process for prioritization of antiviral medications.
- Describes a strategy for antiviral acquisition and delivery and development of a system to track supplies and adverse events.

Travel Related Disease Control and Community Containment

- Provides recommendations on containment strategies, including:
 - Travel health alert notices.
 - Isolation and quarantine of new arrivals
 - Restriction or cancellation of non-essential travel.
 - Closures of school and public places (Snow Days)
- Develops plans for isolation, quarantine and contact tracing.

Communications

- Describes social marketing strategies for risk reduction behaviors (e.g., hand washing, respiratory etiquette, social distancing).
- Outlines development of key messages and pre-positioning of communications products to expedite delivery of information during a pandemic.
- Recommends communication strategies to address the worried well.
- Describes mass media and alternate strategies for provision of public information.

Training and Education

- Determines the need for and develops trainings for various audiences, including:
 - Local health departments.
 - Physicians, nurses, other healthcare providers.
 - Hospitals, long-term care facilities, community health clinics.
 - Emergency medical services providers.
 - Non-medical response partners.

Workforce Support

- Ensures psycho-social support services to help workers manage emotional stress during a response to an influenza pandemic, including personal, professional and family issues.
- Addresses preparation of informational materials.

HPAI Avian Influenza in Animals

- Summarizes current capacity and responsibilities for animal surveillance and laboratory testing for HPAI.
- Summarizes disease control activities in domestic poultry or wild bird flocks.

Public Health Preparedness Informatics

- Ensures informatics capabilities systems are in place to support:
 - Alert notifications.
 - Disease surveillance, contact tracing.
 - Tracking vaccine and antiviral supplies.
 - Monitoring vaccine and antiviral adverse events.
 - Tracking hospital resources and needs.

Prioritization Decisions

Vaccine: During the initial stages of a pandemic, the supply of vaccine will most likely be limited. For the purposes of our plan, New York State DOH has included the federal guidance regarding priority groups; however, other alternatives are being considered. For example, New York State will assess whether or not critical infrastructure capacities that protect continuation of essential services, such as law enforcement, etc., have sufficient priority in the federal plan. **The discussion of priority groups is ongoing and will be modified as needed. In particular, priority groups will be modified according to the epidemiology of the pandemic.** Groups who may be considered for vaccine prioritization include:

- Those who maintain essential services (public safety and health care)
- Those at high risk for contracting influenza during a pandemic (including those who would work in response to an outbreak of avian influenza).
- Those at high risk for complications or death.
- Those who are ill and hospitalized with influenza.

Antivirals: The Department of Health and Human Services (DHHS) and the National Vaccine Advisory Committee (NVAC), in cooperation with the Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP), have provided guidance on prioritization of persons to be given antivirals during a pandemic. This guidance will most likely change when epidemiologic data on a specific pandemic virus becomes available. By this we mean such event-driven factors as the actual pandemic influenza strain present; extent and severity of illness; how infection is spreading; and issues such as age, underlying health status, occupation, and the like that are contributing to increased risk of illness and death.

Once this information is known, the NYSDOH, in conjunction with the CDC, health care organizations, and local health departments (LHDs), will determine the prioritization of the population groups to receive influenza antiviral medication. These recommendations will then be distributed as statewide guidelines.

Altered Standards of Care for Health Care Providers

Like prioritization, imposition of alternate modalities for, and standards of care during an influenza pandemic would be event-specific and driven by the epidemiology of the disease outbreak. The NYSDOH pandemic plan discusses the need to convene an expert panel pre-event to explore whether and what altered standards of care need to be developed when the demand for services and life-sustaining equipment exceeds the supply, which is likely to happen in a severe pandemic.

Computer software from CDC allows us to model what we could expect in even a moderate pandemic. Nearly 15 thousand New Yorkers would be hospitalized each week; resulting in nearly 4 thousand deaths. Flu patients likely will use the vast majority of our state's health care resources. For instance:

- **In a moderate pandemic influenza patients will most likely utilize:**
 - **63% of hospital bed capacity**
 - **125% of intensive care capacity**
 - **65% of hospital ventilator capacity.**

Choices will have to be made about how to optimize scarce assets to slow the spread of disease, decrease illness and death, and buy time. Members of the public should become actively engaged in candid discussions with health emergency planners in their community to help identify challenges and explore options to assure that difficult decisions are made fairly, and that the public fully understands the rationale for altered standards of care, should they become necessary.