UNITED STATES PREPARES FOR HIGHLY PATHOGENIC H5N1
AVIAN INFLUENZA IN WILD BIRDS

Introduction

Avian influenza (AI)—the bird flu—is a disease caused by a virus that infects domestic poultry, wild birds (geese and ducks and shorebirds). Each year, there is a bird flu season just as there is for humans and, as with people, some forms of the flu are worse than others.

The highly pathogenic H5N1 strain of bird flu has been found in an increasing number of countries in Europe, Asia and Africa. Currently, H5N1 avian influenza is not present in the United States. It is likely the highly pathogenic H5N1 strain will spread to this country, and the U.S. Government is taking steps to prepare for and minimize the potential impact of bird flu.

There are a number of ways that highly pathogenic H5N1 could potentially reach the United States—wild bird migration, illegal smuggling of birds or poultry products, travel by infected people or people traveling with virus-contaminated articles from regions where H5N1 already exists.

Historically, highly pathogenic strains of avian influenza have been detected in domestic poultry populations three times in the United States: in 1924, 1983 and 2004. There have been no occurrences of highly pathogenic avian influenza in wild birds in the United States and no significant human illness resulted from any of these outbreaks.

- The 1924 H7 outbreak was contained and eradicated in East Coast live bird markets.
- The 1983-84 H5N2 outbreak resulted in the destruction of approximately 17 million chickens, turkeys and guinea fowl in the northeastern U.S. to contain and eradicate the disease.
- In 2004, USDA confirmed an H5N2 outbreak in chickens in the southern United States. The disease was quickly eradicated thanks to close coordination and cooperation between USDA, state, local and industry leaders. Because of the quick response, which included quarantine and culling of birds, the disease was limited to one flock.
Monitoring Bird Health in the U.S.

The U.S. Department of the Interior and U.S. Department of Agriculture have proactive interagency efforts underway to monitor wild migratory birds in the United States and to test statistically significant samples of populations of various migratory bird species for avian influenza.

USDA and Interior’s agencies, including the U.S. Geological Survey and the U.S. Fish and Wildlife Service, have been working for the past several months with State of Alaska biologists to strategically sample live birds, hunter taken birds, sentinel flocks, and the environment used by these targeted populations for highly pathogenic H5N1 bird flu in the Pacific Flyway. The Interagency Strategic Plan for monitoring of wild birds, which expands and intensifies their program in 2006, focuses on this Alaska area because it is a flyway crossroads for migratory birds that annually return from their winter migration in Asia, and come in contact with other North American migratory birds that return to Alaska in the spring from wintering areas in the southern United States and Central America.

Testing also is being carried out in other migratory bird flyways in cooperation with state and local agencies. This enhanced monitoring program will provide an early warning to the agriculture, public health and wildlife communities should migratory birds be found to carry the highly pathogenic H5N1 virus.

Since 1998, USDA and the University of Alaska have tested more than 12,000 wild migratory birds in AK and since 2000 USDA and the University of Georgia have tested more than 4,000 wild birds in the Atlantic flyway. All birds tested negative for highly pathogenic H5N1. As part of this enhanced monitoring, in 2006 USDA, DOI and its cooperators plan to test between 75,000 to 100,000 samples from live and dead birds. Eleven thousand of the live bird samples will be initially screened by USGS at its Nat'l Wildlife Health Center in Madison, WI. The remaining samples will be initially tested at labs certified by USDA in the National Animal Health Laboratory Network. Suspected findings of highly pathogenic avian influenza will be further tested and diagnosed by the USDA National Veterinary Services Laboratory lab in Ames, Iowa.

USDA’s Animal Plant Health Inspection Service (APHIS) and Interior’s Fish and Wildlife Service also works with the U.S. Department of Homeland Security’s U.S. Customs and Border Protection at major U.S. air and seaports to inspect, examine and regulate the importation of live poultry, commercial birds, pet birds and/or “hatching eggs.” Interior land management agencies, including the National Park Service, FWS, Bureau of Land Management, Bureau of Indian Affairs and Bureau of Reclamation, are educating their employees and working with stakeholder and support groups, and preparing protocols to protect visitors and employees on public lands. (Many of these lands provide nesting, migration and wintering habitat for waterfowl and other migratory birds. More than 450 million people visit Interior lands annually.) Interior also has developed a departmental pandemic influenza plan to assure continuity of operations.
In addition, USDA monitors U.S. domestic and wild bird populations. Monitoring is conducted in four key areas: live bird markets, commercial flocks, backyard flocks and migratory bird populations. Frequent testing occurs in live bird markets and commercial flocks. Additionally, birds are tested that show signs of illness. To help backyard and smaller poultry producers, the USDA “Biosecurity for the Birds” program provides important information about reducing the chances of birds becoming infected with AI. Biosecurity refers to the application of practical, common sense management practices to keep AI and other poultry diseases out of our commercial and backyard flocks.

In the event of a highly pathogenic avian flu outbreak in the United States, USDA maintains a bank of bird vaccines to protect healthy birds outside a quarantine area, if necessary. The vaccine would be used to create a firewall around a quarantine to prevent spread. Currently, USDA has 40 million available bird vaccine doses, which have been proven effective against the highly pathogenic H5N1 virus. Another 70 million doses are in development. USDA works closely with its federal, state and tribal partners, as well as industry stakeholders to ensure that effective and coordinated emergency response plans are ready should an outbreak HPAI occur. In addition, USDA researchers are developing faster diagnostic tests, enhanced vaccines for birds and new information about how avian influenza spreads so that the United States is better prepared for avian influenza outbreaks.

**Bird Import Restrictions**

As a primary safeguard, USDA maintains trade restrictions on the importation of poultry and poultry products from countries where the H5N1 HPAI strain has been detected in commercial or traditionally raised poultry, not in wild or migratory birds. Additionally, USDA has increased its monitoring of domestic commercial markets for illegally smuggled poultry and poultry products. All imported live birds must be quarantined for 30 days at a USDA quarantine facility and tested for the avian influenza virus before entering the country. Home quarantine and testing for AI also is required for returning U.S.-origin pet birds. The U.S. Fish and Wildlife Service works with USDA to communicate these trade restrictions to the pet bird trade community and incorporates them into decisions on permits it issues for wild bird trade.

**Guidance for handling wildlife**

The Department of Interior’s National Wildlife Health Center has issued guidance to follow routine precautions when handling wild birds. The Center recommends that people handling wild birds:

- Do not handle birds that are obviously sick or birds found dead.
- Wear rubber or disposable latex gloves while handling and cleaning game, wash hands with soap and water (or with alcohol-based hand products if the hands are not visibly soiled), and thoroughly clean knives, equipment and surfaces that come in contact with game.
- Do not eat, drink, or smoke while handling or cleaning birds.
- Cook all game meat thoroughly (at least to 165°F) to kill disease organisms and parasites.
Monitoring Human Health

At present, highly pathogenic avian influenza, such as the highly pathogenic H5N1 strain, is a disease of birds and is not readily transmitted to humans. In rare cases, it can be spread from birds to people primarily as a result of extensive direct contact with raw infected poultry or poultry droppings. There have been no documented cases of human highly pathogenic H5N1 disease resulting from contact with wild birds.

Broad concerns about public health relate to the potential for the virus to mutate, or change into a form that could spread from person to person. The U.S. Department of Health and Human Services is aggressively working with a team of federal, state and industry partners to ensure public health is protected.

Since February 2004, HHS’ Centers for Disease Control and Prevention (CDC) has provided U.S. public health departments with a series of alerts providing recommendations for enhanced monitoring for highly pathogenic H5N1 influenza in the U.S. Distributed through CDC’s Health Alert Network, these alerts reminded public health departments about recommendations for detecting, diagnosing, and preventing the spread of highly pathogenic H5N1 virus. The alerts also recommended measures for laboratory testing for suspected highly pathogenic H5N1 virus.

Food Safety

Eating properly handled and cooked poultry is safe. If highly pathogenic H5N1 were detected in the U.S., the chance of infected poultry entering the human food chain would be extremely low. Even if it did, proper cooking kills this virus just as it does many other disease organisms and parasites. Poultry products imported to the U.S. must meet all safety standards applied to foods produced in the U.S.

- Wash hands with warm water and soap for at least 20 seconds before and after handling food;
- Prevent cross-contamination by keeping raw meat, poultry, fish, and their juices away from other foods;
- After cutting raw meats, wash cutting board, knife, and counter tops with hot, soapy water;
- Sanitize cutting boards by using a solution of 1 teaspoon chlorine bleach in 1 quart of water; and
- Use a food thermometer to ensure food has reached the safe internal temperature--in all parts of the bird. Cook poultry to at least 165° F to kill foodborne germs that might be present, including the avian influenza virus.

Planning for Pandemic Influenza

Should highly pathogenic H5N1 arrive in the U.S., it does not signal an influenza pandemic. Nonetheless, the HHS has been preparing for pandemic influenza for several years. Ongoing preparations include the following:
• Working with the World Health Organization (WHO) and with other nations to help detect human cases of bird flu and contain a flu pandemic, if one begins
• Supporting the manufacturing and testing of influenza vaccines, including finding more reliable and quicker ways to make large quantities of vaccines
• Developing a national stockpile of antiviral drugs to help treat and control the spread of disease
• Supporting the efforts of federal, state, tribal, and local health agencies to prepare for and respond to pandemic influenza
• Working with federal agencies to prepare and to encourage communities, businesses, and organizations to plan for pandemic influenza

Each individual and family should know both the magnitude of what can happen during a pandemic outbreak and what actions can be taken to help lessen the impact of an influenza pandemic on themselves and their community.

To plan for a pandemic:

• Store a supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.
• Have any nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
• Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.
• Volunteer with local groups to prepare and assist with emergency response.
• Get involved in your community as it works to prepare for an influenza pandemic.

To limit the spread of germs and prevent infection:

• Teach your children to wash hands frequently with soap and water, and model the correct behavior.
• Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.
• Teach your children to stay away from others as much as possible if they are sick. Stay home from work and school if sick.

Knowing the facts is the best preparation. Identify sources you can count on for reliable information. If a pandemic occurs, having accurate and reliable information will be critical.

• Reliable, accurate, and timely information is available at www.pandemicflu.gov.
• Another source for information on pandemic influenza is the Centers for Disease Control and Prevention (CDC) Hotline at: 1–800-CDC-INFO (1-800-232-4636). This line is available in English and Spanish, 24 hours a day, 7 days a week. TTY: 1-888-232-6348. Questions can be e-mailed to cdcinfo@cdc.gov.
• Look for information on your local and state government Web sites. Links are available to each state department of public health at www.pandemicflu.gov/plan/tab2.html.
• Listen to local and national radio, watch news reports on television, and read your newspaper and other sources of printed and Web-based information.
• Talk to your local health care providers and public health officials.

Additional Information

For more information about avian influenza:
• www.usda.gov/birdflu
• www.nwhc.usgs.gov/research/avian_influenza/avian_influenza.html
• www.pandemicflu.gov