



## Current Situation

Avian Influenza (AI) referred to as the bird flu is a disease caused by a virus that infects domestic poultry, wild birds and even pet birds. Each year there is a bird flu season just as there is for humans. Avian Influenza strains are divided into two groups: low pathogenicity (low path-LPAI) and high pathogenicity (high path-HPAI). Low path avian influenza has existed in the United States since the early 1900s and is not uncommon. It causes some birds to become ill and can be fatal to some. The low path strains of the virus rarely pose any serious threat to human health. High path avian influenza is more easily transmitted and is often fatal in birds.

In addition to being divided between high and low pathogenicity strains avian influenza viruses are classified by a combination of two groups of proteins: H proteins, of which there are 16 (H1-H16) and N proteins, of which there are 9 (N1-N9). The type of avian influenza currently being detected in parts of Southeast Asia, the Middle East and Eastern Europe is identified as H5N1 HPAI. This is the strain that has been transmitted to humans and according to the World Health Organization has resulted in 185 confirmed cases and 104 deaths to date in 8 countries. Most of those affected had extensive, direct contact with infected birds. HPAI has been detected three times in the United States: in 1924, 1983 and 2004. No significant human illness resulted from these three outbreaks and all were contained, eradicated and limited to one geographic area of the country. Forest Service employees and other wildland fire resources were involved in the eradication effort during the outbreak in 2004. Because of the quick response, which included quarantine and culling of birds, the disease was limited to one flock.

The concerns with this current strain and outbreak of avian influenza relate to the potential for the virus to mutate to a form that could spread from person to person. **The high path H5N1 avian influenza virus has not mutated into a sustained human-to-**

**human form.** This mutation would have to happen to trigger the global pandemic that is being cited as a potential from this current outbreak. Although work is underway according to the Centers for Disease Control (CDC) there is not currently a vaccine available to protect humans.

## How Avian Influenza May Arrive in the U.S.

Experts feel that the most likely scenario for avian flu to arrive in the United States is from migratory birds and water fowl. Certain species of affected wild birds in countries with verified cases of avian influenza do migrate from the East/Asian/Australian Migratory Bird Flyway to Alaska. Once in Alaska there is the potential the virus could be passed on to other wild birds that migrate along the Pacific Migratory Bird Flyway spreading it into North and South America. An intensive wild bird and water fowl surveillance program led by USDA's Animal and Plant Health Inspection Service (APHIS), DOI's U.S. Geological Survey and the International Association of Fish and Wildlife Agencies is being established in Alaska.

## Avian Influenza and Pandemic Influenza

According to the World Health Organization avian influenza refers to a large group of different influenza viruses that primarily affect birds. On rare occasions these bird viruses can infect other species including humans but the vast majority of avian influenza viruses do not infect humans. An influenza pandemic happens when a new subtype emerges that has not previously circulated in humans and causes a global outbreak. For this reason, avian H5N1 is a strain with pandemic potential, since it might ultimately adapt into a strain that is contagious among humans. If this adaptation occurs, it will no longer be a bird virus—it will be a human influenza virus. Influenza pandemics are caused by new influenza viruses that have adapted to humans.

Influenza pandemics are rare but they are a recurrent event. Three pandemics occurred in the previous century: “Spanish Influenza” in 1918, “Asian Influenza” in 1957, and “Hong Kong Influenza” in 1968. The 1918 pandemic killed as estimated 40–50 million people worldwide and is considered one of the deadliest disease events in human history. The other two pandemics were much milder, with an estimated 2 million deaths in 1957 and 1 million worldwide deaths in 1968. A pandemic occurs when a new influenza virus emerges and starts spreading as easily as normal influenza—by coughing and sneezing. Because the virus is new, the human immune system will have no pre-existing immunity. This makes it likely that people who contract pandemic influenza will experience more serious illness than that caused by normal influenza.

### **What the Forest Service Is Doing**

The Chief recently distributed an Influenza Workforce Protection plan. The plan covers issues such as continuity of business, Continuity of Operations Plan (COOP), protection of employees within the workplace and sources of educational material (also listed below). The plan will be posted on the Forest Service website. The Chief has directed field units to develop similar local plans to fit local needs and situations. An Interagency Influenza Readiness and Response Plan is also underway which will describe the types of incidents responders might respond to as well as medical requirements, Personal Protective Equipment (PPE), training and other issues critical to safe responses to either an avian influenza occurrence or support of medical and public health personnel dealing with a pandemic flu outbreak. The Forest Service is also working closely with APHIS and will be providing information to field offices on what to do if dead birds are found in the field or brought to offices by the public as well as general education information to be shared with the public. Avian Influenza Bulletins such as this one will be issued periodically to provide status reports and new information as it becomes available.

### **What You Can Do**

The best thing you can do for yourself, co-workers and your family is to find out everything you can about avian influenza and pandemic influenza outbreaks.

Become familiar with your local Influenza Workforce Protection Plan and the Influenza Readiness and Response Plan if you are a likely responder. The internet has a wealth of information including medical and vaccine information and check lists for personal preparedness from a variety of organizations. The list below describes some of websites by type of information provided.

#### **General Information**

[www.AvianFlu.gov](http://www.AvianFlu.gov)  
[www.PandemicFlu.gov](http://www.PandemicFlu.gov)  
[www.usda.gov/birdflu](http://www.usda.gov/birdflu)  
[www.abcnews.go.com/Health/AvianFlu/](http://www.abcnews.go.com/Health/AvianFlu/)

#### **Prevention: avoiding the spread of colds and flu —workplace hygiene and health practices**

[www.cdc.gov/flu/protect/stopgerms.htm](http://www.cdc.gov/flu/protect/stopgerms.htm)  
[www.cdc.gov/flu/protect/preventing.htm](http://www.cdc.gov/flu/protect/preventing.htm)  
[www.cdc.gov/germstopper/resources.htm](http://www.cdc.gov/germstopper/resources.htm)

#### **Vaccines and Vaccinations**

*General Information:* [www.cdc.gov/flu/protect/keyfacts.htm](http://www.cdc.gov/flu/protect/keyfacts.htm)

*General Flu:* [www.cdc.gov/flu/](http://www.cdc.gov/flu/)  
*Avian Flu:* [www.cdc.gov/flu/avian/](http://www.cdc.gov/flu/avian/)  
*Pandemic Flu:* [www.cdc.gov/flu/pandemic/](http://www.cdc.gov/flu/pandemic/)

#### **Preparedness**

[www.pandemicflu.gov/plan/pdf/individuals.pdf](http://www.pandemicflu.gov/plan/pdf/individuals.pdf)  
[www.pandemicflu.gov/plan/pdf/guide.pdf](http://www.pandemicflu.gov/plan/pdf/guide.pdf)

#### **Hunter Precautions and Field Biologist Handling Wild Birds**

[www.nwhc.usgs.gov/publications/wildlife\\_health\\_bulletins](http://www.nwhc.usgs.gov/publications/wildlife_health_bulletins)

#### **Employee Assistance Program**

[www.FOH4YOU.com](http://www.FOH4YOU.com)