



## Avian Influenza: Health Information for the DOE Traveler

### **What is the avian influenza A (H5N1) virus?**

Influenza A (H5N1) virus – also called “H5N1 virus” – is an influenza A virus subtype that occurs mainly in birds. Like all bird flu viruses, H5N1 virus circulates among birds worldwide, is very contagious among birds, and can be deadly.

Avian Influenza or “Bird Flu” occurs naturally in wild and domesticated birds. The H5N1 strain is a particularly deadly form of the virus. It has been isolated from birds in Asia and other parts of the world. A small number of humans also have been infected, mostly by exposure to infected birds. Because humans lack immunity to bird flu, approximately 50 percent of the affected persons have died. Scientists predict that an influenza pandemic (i.e., a global disease outbreak) with avian influenza will result in millions of deaths worldwide.

The questions and answers in this Advisory were adapted from information from the Centers for Disease Control and Prevention (CDC) and the Department of State. The DOE traveler can minimize the health risks associated with bird flu by avoiding exposure to the virus, obtaining prompt medical care if flu symptoms develop, and accessing current information on bird flu.

### **Do bird flu viruses infect humans?**

Not usually, but cases of human infection with bird flu viruses have occurred since 1997. So far, spread of H5N1 virus from person to person has been rare and spread has not continued beyond one person. Because all influenza viruses have the ability to change, scientists are concerned that the H5N1 virus could one day be able to infect humans and spread easily from one person to another. Because these viruses do not commonly infect humans, there is little or no immune protection against them in the human population. If the H5N1 virus were able to infect people and spread easily from person to person, an “influenza pandemic” could begin. No one can predict when or where a pandemic



might occur. However, experts from around the world are watching the H5N1 situation very closely and are preparing for the possibility that the virus may begin to spread more easily and widely from person to person.

### **How does bird flu spread?**

Infected birds shed flu virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions. It is believed that most cases of bird flu infection in humans have resulted from contact with infected poultry or contaminated surfaces.

### **Where has the H5N1 virus been found?**

Beginning in late 2003, outbreaks of bird flu have been reported in Southeast Asia (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam). In recent months, H5N1 was isolated from birds in Russia. The virus can be spread from country to country through international poultry trade or carried by migratory birds.

### **What is the risk to humans from bird flu?**

The risk from bird flu is generally low to most people because the viruses occur mainly among birds and do not usually infect humans. During an outbreak of bird flu among poultry (domesticated chicken, ducks, turkeys), there is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with excretions from infected birds. While only about 100 humans have been infected, the death rate for these reported cases has been 50 percent. **DOE travelers should avoid contact with infected birds or contaminated surfaces, and should be careful when handling and cooking poultry.** For more information about avian influenza and food safety issues, visit the World Health Organization website at [http://www.who.int/csr/disease/avian\\_influenza/en](http://www.who.int/csr/disease/avian_influenza/en).

#### **Flu Symptoms**

- Cough
- Sore throat
- Fever
- Muscle aches
- Eye infections
- Pneumonia
- Difficulty breathing



## Tamiflu



### How is infection with H5N1 virus in humans treated?

Two antiviral medications, oseltamivir and zanamavir, would probably work to treat flu caused by the H5N1 virus, though studies still need to be done to prove that they would be effective. Flu viruses can become resistant to these drugs, so these medications may not always work.



**NOTE:** Oseltamivir is manufactured by Hoffman-LaRoche, Inc. (Tamiflu® – tablet).

Zanamivir is manufactured by Glaxo Smithkline (Relenza® – inhaled powder). Information based on data published by the U.S. Food and Drug Administration at [www.fda.gov](http://www.fda.gov).

### Is there a vaccine to protect humans from H5N1 virus?

No. Vaccine development efforts are underway. Research studies to test a vaccine to protect humans against H5N1 virus began in April 2005. The “normal” flu vaccine available each year will not protect you from infection with the H5N1 virus. Consult your health care provider for vaccination recommendations. For more information about the H5N1 vaccine development process, visit the National Institutes of Health (NIH) website at [http://www3.niaid.nih.gov/news/news\\_releases/2005/H5N1QandA.htm](http://www3.niaid.nih.gov/news/news_releases/2005/H5N1QandA.htm).

### How can I avoid exposure to the H5N1 virus?

There have been no human cases of H5N1 flu in the United States. Travelers returning from affected countries in Asia or elsewhere could be infected. CDC currently advises that travelers to countries with known outbreaks of influenza A (H5N1)

avoid poultry farms, contact with animals in live food markets, and any surfaces that appear to be contaminated with feces from poultry or other animals.



### How can I get medical care while traveling overseas?

Before going overseas, DOE travelers are advised to consult their health insurance providers to determine insurance coverage for health care services obtained outside the United States. Be sure to carry a sufficient supply of prescription medications, a copy of your prescriptions, and a description of your health status written in the language of the countries you will visit.

Your program office is responsible for arranging emergency medical evacuation and repatriation for its employees overseas. For assistance, you may also contact the American Citizen Services representative at the nearest US embassy or consulate.

In the event of a serious public health crisis, such as an outbreak of avian influenza, the Department of State (DOS) is responsible for providing health services to federal government employees on official government travel in foreign countries. Travelers needing medical care or regional health information should contact the local US mission directly. Some embassies and other missions operate medical clinics. Contact information is available at [http://travel.state.gov/travel/tips/embassies/embassies\\_1214.html](http://travel.state.gov/travel/tips/embassies/embassies_1214.html).

### What should I do if I develop flu symptoms after returning from overseas?

As with any illness, you should promptly seek appropriate medical care. Tell your health care provider when and where you have traveled. Mention any disease outbreaks in the countries you visited. If your provider suspects that you have the flu or any other infectious disease, contact the DOE Health Unit prior to returning to work. By following these procedures, you will help minimize the risk of disease transmission in a DOE facility.

For further information, contact Mike Montopoli, MD, MPH, Acting Director, Office of Health Services, by telephone at 202-586-6178, or by e-mail at [michael.montopoli@eh.doe.gov](mailto:michael.montopoli@eh.doe.gov).

#### Where can I find more information?\*

- CDC Avian Influenza: [www.cdc.gov/flu/avian/index.htm](http://www.cdc.gov/flu/avian/index.htm)
- CDC Travelers' Health: [www.cdc.gov/travel](http://www.cdc.gov/travel)
- World Health Organization: [www.who.int/csr/disease/avian\\_influenza/en](http://www.who.int/csr/disease/avian_influenza/en)
- Department of State Travel Health Tips: [http://travel.state.gov/travel/tips/health/health\\_1185.html](http://travel.state.gov/travel/tips/health/health_1185.html)
- Visit the nearest DOE Health Unit (FORS GG-028, telephone 202-586-9765) (GTN A-075, telephone 301-903-4275)

\* These websites also have information available in languages other than English.

