

# **Avian Influenza and Pandemic Flu Frequently Asked Questions**

## **NH Department of Health and Human Services – 10-9-07**

### ***GENERAL INFORMATION***

#### **1. What is avian influenza?**

Avian influenza (also known as avian flu) is a virus that infects wild birds, such as ducks and geese, and domesticated birds, such as chickens and turkeys. There are strains of avian flu that infect birds every year in the U.S. and around the world. Most of these strains can kill birds but do not infect people.

#### **2. Why is it called avian flu?**

Avian comes from the Latin word meaning bird, and avian flu is most commonly an illness found in birds.

#### **3. What is H5N1 avian flu?**

H5N1 is a type of avian flu that is currently circulating among wild and domestic birds in other parts of the world. It has a high mortality (death) rate in some birds and it is unusual because it has also infected people in rare circumstances.

#### **4. Are there different types of H5N1 virus?**

Yes. There is a less dangerous (low pathogenic) version that is found in many countries, including the United States. It generally does not kill birds and does not infect people. The H5N1 virus strain that is currently circulating in Europe, Asia, and Africa is a highly pathogenic (more deadly) version. This highly pathogenic avian influenza (HPAI) virus causes many bird deaths and can infect people. The HPAI H5N1 virus is also changing, or mutating, as it spreads among birds.

#### **5. What is a pandemic?**

A pandemic is an outbreak of a new, contagious disease that circles the globe and affects many people, most of whom do not have any resistance, or immunity, to it.

#### **6. Is H5N1 avian flu going to start a pandemic?**

Scientists cannot predict whether the avian influenza H5N1 virus will cause a pandemic. Today, H5N1 is primarily a disease of birds. Although there have been a few cases of limited human to human spread of H5N1 in family clusters, the spread has not gone beyond one person. However, as the virus changes, it is possible for it to become capable of easily passing from person to person and then spreading very quickly. That is why New Hampshire and the U.S. are focusing on comprehensive public health efforts that will help protect people no matter what pandemic strain emerges or where. These efforts include increasing surveillance, monitoring for outbreaks, fostering better international cooperation, increasing antiviral stockpiles, and building more robust capacity for vaccine production.

### **7. When will H5N1 avian flu get to the U.S.?**

Nobody knows if or when the highly pathogenic H5N1 version of avian flu will get to the U.S. or New Hampshire. It is important to remember that less dangerous strains of avian flu viruses are present in the U.S. and around the world all the time. If and when highly pathogenic H5N1 avian flu comes to the U.S., the federal government and the NH Department of Health and Human Services will let citizens know and will provide guidelines on what they should be doing.

### **8. How does pandemic flu differ from seasonal flu?**

Almost everyone has some immunity to seasonal flu, but virtually no one has immunity to a pandemic strain. A pandemic flu will likely make more people much sicker than the seasonal flu. Symptoms of seasonal flu include fever, cough, sore throat, runny nose, and muscle pain. These symptoms may be much more severe and complications such as pneumonia may be more common with pandemic flu.

### **9. Can mosquitoes spread the avian H5N1 virus?**

Mosquitoes have not been shown to spread any kind of influenza virus. It is not likely that the H5N1 virus could be carried by a mosquito ingesting blood from an infected animal, as in the transmission of some other diseases such as West Nile Virus and Eastern Equine Encephalitis.

### **10. What are isolation and quarantine?**

Isolation is the separation of infected persons from other people to prevent the spread of disease. Quarantine is the separation of well persons who may have been exposed to an infected individual but who are not yet ill, and helps to prevent disease transmission if infection should occur. Public health officials have long used both of these practices to help prevent the spread of disease. During a pandemic, people who are not sick but who may have been exposed may be asked to stay home, possibly for weeks at a time. This is called voluntary quarantine, and it may also help slow the spread of the virus.

## ***AVIAN FLU IN BIRDS AND OTHER ANIMALS***

### **11. What are the symptoms of avian flu in birds?**

Avian flu can cause a runny nose, coughing, soft-shelled or misshapen eggs, lack of coordination, lack of energy, and other symptoms.

### **12. Is there a way to prevent birds from becoming ill?**

Some countries have been using a vaccine made for domestic birds, such as chickens, but it is not known how effective this is. Some countries are attempting to keep domestic birds indoors all the time to prevent them from coming into contact with wild birds that may spread the disease. Information on what bird owners can do to protect their birds from avian influenza can be found at <http://www.aphis.usda.gov/vs/birdbiosecurity/hpai.html>.

**13. How do birds get avian flu?**

Avian flu is found naturally in many wild birds and often does not make them ill. The virus is then spread by the bird in its saliva and feces to other birds, and occasionally to people. People can also spread the virus unintentionally if their shoes, hands, or clothes become contaminated.

**14. Will infected birds get to the United States?**

It is possible that migratory birds infected with highly pathogenic H5N1 avian flu will reach the U.S. Many scientists believe migratory birds are in part responsible for the rapid spread of avian influenza, but studies are still ongoing to see if this is true. It is important that we are prepared for this possibility, even if highly pathogenic H5N1 avian flu never reaches the U.S.

**15. Is it safe to eat chicken and other fowl?**

Yes. As long as chicken, eggs, and all meat are handled appropriately they are safe to eat. All parts of the chicken (or other fowl) need to be fully cooked to a temperature of 165°F (with no “pink” parts); this temperature will kill the H5N1 virus as well as other germs. Make sure eggs are fully cooked so that the yolks are not runny or liquid. Soft-boiled or raw eggs should not be used in food that will not be cooked. Keep raw meat separate from cooked or ready-to-eat foods, such as lettuce or fruit. Do not use the same knife, utensils, or cutting board for raw meat or ready-to-eat foods. It is important to wash hands thoroughly with soap and warm water in between handling raw foods and ready-to-eat foods, and to thoroughly clean all surfaces and utensils that have been in contact with raw meat and eggs before using them again. After washing, cutting boards should be sanitized with a solution of 1 teaspoon of chlorine bleach mixed into 1 quart of water. These are normal precautions that should always be followed even in the absence of a pandemic or H5N1 found in poultry.

**16. Can other animals besides birds get avian flu?**

There have been some cases of other types of animals contracting avian flu besides birds, including cats, dogs, ferrets and pigs.

**17. How do I protect my cats or dogs?**

While there have been some cases of house cats and dogs contracting highly pathogenic H5N1 avian flu, this appears to be because they ate infected birds. Since there is no highly pathogenic H5N1 virus in the U.S., it is not a risk at this time. Should highly pathogenic H5N1 avian flu arrive in birds in the U.S., it would be a good idea to keep house cats inside. There is no evidence that cats or dogs sick with avian influenza can spread the disease to people.

**18. Are my pet birds safe from avian flu?**

A pet bird that stays inside all of the time is not likely to become infected or pose any threat. It is illegal to import pet birds into the U.S. from any regions that are being affected by the H5N1 virus.

**19. Is it safe to have a bird feeder in my backyard?**

There is no evidence of highly pathogenic H5N1 virus having caused disease in birds or people in the U.S. At the present time, there is no risk of becoming infected with H5N1 virus from bird feeders. Generally, perching birds are the predominate type of birds at feeders. While there are documented cases of H5N1 causing death in some perching birds, none occurred in the U.S. and most of the wild birds that are traditionally associated with avian influenza viruses are waterfowl and shore birds. Hand washing and recommended handling practices will also help to reduce the risk associated with potentially contaminated birds or materials.

**20. Should I keep my children away from birds and chickens?**

Since there is no highly pathogenic H5N1 avian flu in the U.S. at this time, there is no danger from birds. It is always a good idea, however, for anyone handling healthy domestic birds to wash their hands thoroughly afterward. People should avoid handling wild birds or dead or sick birds. If handling is necessary, wear rubber or latex gloves or use plastic bags. Wash hands thoroughly afterwards.

**21. What should I do about bird droppings?**

Avoid direct contact with bird droppings. If you do touch bird droppings, you should immediately wash your hands or the affected area with soap and warm water. If you cannot avoid contact with bird droppings, take special precautions such as wearing a mask on your nose and mouth, wearing gloves on your hands, then discarding the gloves, washing your hands, and laundering your clothes afterward.

**22. What should I do if I find a dead bird?**

Call your local animal control or health officer at your town office. In certain cases, the bird may be selected for testing for avian influenza or other diseases. If the bird is not chosen for testing, you should put on gloves and place the dead bird in two plastic bags sealed tightly. The town official will tell you how to best dispose of it.

**23. Is it safe to swim in lakes where wild birds feed and nest?**

While there is limited information on this, and there are as yet no wild birds infected with highly pathogenic H5N1 virus in New Hampshire or in the U.S., several studies show

that the amount of virus from wild birds in a body of water would be too small to cause harm. However, it is important not to touch bird droppings and it is always a good idea to take a bath or shower after swimming in rivers, lakes, and ponds to avoid any illness.

**24. Is it safe to go to fairs and other events where there are large numbers of birds?**

Yes. In New Hampshire, fairs require bird owners to be National Poultry Improvement Plan certified to participate. This means that the flocks have been found free of low pathogenic avian influenza and *Salmonella pullorum* during that year. At this time there is no highly pathogenic H5N1 in the United States in birds or people, so that is not a risk.

**25. How will birds be culled in New Hampshire?**

Culling in New Hampshire, if it becomes necessary, will be in compliance with U.S. Department of Agriculture and American Veterinary Medical Association standards. It will be a case-by-case decision. On a large scale, however, the most likely option is carbon dioxide infusion into the environment. This chemical has anesthetic properties, which decreases pain, in addition to acting as a euthanizing agent.

**26. Is it safe to use products made from bird feathers?**

There are no known cases of avian flu being spread to people by bird feather in items such as down comforters, coats or pillows. To limit the possible risk of getting disease from feathers and other products derived from birds, the U.S. has banned the importation of birds and bird products from countries being affected by the H5N1 virus.

**27. If I see wild birds in my yard can I kill them?**

There is no reason related to disease control for anyone to kill wild birds. It is also prohibited in New Hampshire to kill wild birds without a permit from the NH Fish and Game Department.

**28. Is pet food that contains chicken or chicken products safe to give my pet?**

Yes. The H5N1 virus is killed by cooking at temperatures above 158°F (70°C). The high temperatures required to make commercial pet food eliminate the risk of infection in pets that eat these products. Pets, however, should never be fed raw or undercooked chicken or eggs.

## ***AVIAN FLU AND HUMANS***

**29. How do people get H5N1 avian flu?**

It is important to remember that while millions of birds have become infected with H5N1 avian flu, it is very difficult for people to become infected. To date, there have been only about 300 confirmed human cases worldwide. In order for people to get avian flu, they need very close contact with infected birds, such as raising, plucking, or slaughtering them without taking precautions, such as wearing a mask and gloves.

**30. Has anyone caught bird flu from another person?**

There have been a handful of cases attributed to person-to-person spread, but these instances were self-limiting and not sustained. They do not indicate the start of a pandemic.

**31. Why do some people recover and some don't?**

No one knows for sure. Most people infected with H5N1 have been previously healthy young children and adults. Scientists are working to find the answers.

**32. What can I do to prevent becoming ill with avian flu?**

While there is currently no risk of someone becoming ill with H5N1 avian flu in the U.S., there are some healthy habits that people should develop. For example, covering your mouth with a tissue when you cough or sneeze and then washing your hands helps prevent transmitting many kinds of illnesses. Wash your hands after using the bathroom, after changing diapers, before eating or preparing any food, and whenever your hands are dirty or soiled. Regularly washing frequently touched surfaces such as keyboards, phones, doorknobs, and elevator buttons also helps to prevent the spread of disease. Do not share food, cups, or eating utensils. Eat a healthy diet including fruits and vegetables and get plenty of sleep. It is also recommended to get the "regular" seasonal flu shot each year as a general preventive measure (see more detail in question 34).

**33. Is there a vaccine against H5N1 avian flu for people?**

In April 2007, an influenza A H5N1 vaccine for humans was approved by the Food and Drug Administration for use in the U.S. This vaccine will not be sold commercially, but will be purchased by the Federal Government and stored in the national stockpile. Because the H5N1 virus continues to change, vaccine development remains challenging. In order to be most effective, an influenza vaccine must match the current circulating influenza virus strain. Scientists continue to study the H5N1 virus as it evolves and continue to work on vaccine development.

**34. Does the regular seasonal flu vaccine help against avian flu?**

The yearly flu vaccine that people receive beginning in October or November will not specifically provide protection against avian flu. However, it is important to be vaccinated every year for protection against seasonal flu, especially for people in high-risk groups. If a pandemic does occur, it will also be important to get seasonal flu vaccine because it may help doctors know who has seasonal flu and who has pandemic flu.

**35. Is there a cure for avian flu?**

There is no cure for avian flu or any type of influenza. However, there are medications called antivirals, which may lessen the severity of illness in people if taken within the first two days of symptoms. Antivirals can also help prevent influenza in some people who have been exposed to the virus. Limited clinical research suggests that two antivirals, oseltamivir (Tamiflu®) and zanamivir (Relenza®) may be useful treatments

for H5N1 avian influenza. Two other antivirals, amantadine and rimantidine, do not appear to be effective in treating avian flu.

**36. How do doctors know if someone has avian flu?**

In order to make a preliminary diagnosis, doctors will look at a patient's clinical symptoms, as well as determine if the person has a history of traveling to a country with known H5N1 outbreaks and may have possibly been exposed to the virus. Any health care provider should immediately contact the Department of Health and Human Services (DHHS) for guidance if he or she is suspicious of avian flu in his or her patient. The DHHS Public Health Laboratories has the ability to run preliminary tests for H5N1 in humans. However, definitive testing must be done at the Centers for Disease Control and Prevention in Atlanta.

**37. Should I avoid going to countries that have outbreaks of avian flu?**

Travel to countries with avian flu outbreaks is not restricted at this time. However, contact with sick or dead poultry, as well as with poultry that have no apparent symptoms, should be avoided in affected countries. Contact with surfaces that may have been contaminated by poultry feces or secretions should also be avoided. Uncooked poultry or poultry products, including blood, should not be consumed because of health risks, including potential exposure to H5N1 avian flu virus.

**38. Are surgical masks helpful in preventing the avian flu?**

Surgical masks, used along with cough hygiene (covering your mouth with a tissue when you cough or sneeze and then washing your hands), may protect people from H5N1 avian flu once the virus can spread from person-to-person. It is a good idea to have surgical masks in a family emergency kit. They may be useful in many emergency situations such as a fire or flood in addition to a pandemic. It is not recommended that the public stockpile other types of masks, such as N-95 respirators.

***PANDEMIC PREPAREDNESS***

**39. Is New Hampshire preparing for a possible flu pandemic?**

New Hampshire has had a state pandemic plan in place since 2001 and the plan was recently updated. The Department of Health and Human Services (DHHS) and the Department of Safety held a pandemic flu drill in November 2005 in coordination with hospitals and local communities. The DHHS Division of Public Health Services has been holding meetings with local public health officials, town officials, the public, faith-based groups, and partner agencies to begin planning for a pandemic in our State. The State is now divided into 19 All Health Hazard Regions that are working on planning for pandemic flu and other health-related emergencies according to criteria set forth by DHHS and Governor Lynch. More information, including the State pandemic plan, can be found at [www.dhhs.nh.gov](http://www.dhhs.nh.gov) or at [www.avianflu.nh.gov](http://www.avianflu.nh.gov).

**40. How will a flu pandemic impact my community?**

Most people will be susceptible to a pandemic influenza virus, and local rates of illness could become high very quickly. Large numbers of people will likely seek medical care,

temporarily overwhelming health care services. High rates of worker absence could also interrupt other essential services, such as transportation, food, fuel, mail delivery, and communications.

**41. Will there still be electricity if there is a pandemic?**

It is hoped that all utilities will still be operating in a pandemic. However, these services may be impacted due to large numbers of people who are ill and cannot work or are unable to work because they are caring for others.

**42. How long will an influenza pandemic last?**

Influenza pandemics often come in two or more waves several months apart, and each wave can last 6 to 8 weeks in a particular location. It is difficult to predict how far apart the pandemic waves will be or how long a pandemic will last.

**43. What should I do to prepare?**

People should not only prepare for an eventual pandemic but also other emergencies that occur frequently, such as power failures, blizzards, floods, and ice storms. It is recommended that people have enough food and water on hand to last up to three weeks in case they cannot leave their homes. It is also important to have extra medication, batteries, and paper goods on hand. The brochure developed by DHHS and the NH Department of Safety, "Preparing for an Emergency: The Smart Thing to Do," is a guide on how to prepare for an emergency. This guide can be found on the DHHS website at [www.avianflu.nh.gov](http://www.avianflu.nh.gov) (click on Public-Citizens then "The Emergency Preparedness Brochure").

**44. If there is no pandemic at this time, why is there all this discussion causing people to be worried and why should we prepare?**

There is no influenza pandemic among humans in the world at this time. Avian flu is a pandemic affecting birds. Scientists and public health officials know that eventually there will be another human flu pandemic. They are concerned the highly pathogenic H5N1 virus strain that is currently circulating in other countries could mutate and result in a pandemic. Therefore, it is important that everyone make preparations now to better handle it and to lessen the impact if and when it does occur. The NH Department of Health and Human Services' intent is not to cause anxiety, but to calm people's concerns by providing information and helping them prepare ahead of time for this and other emergencies.

**45. Should I buy antivirals?**

The state and federal governments do not recommend that individuals try to keep a stockpile of antivirals at home. Antivirals have limited shelf life and, as with other medications, should be taken under supervision of a healthcare provider. The U.S. government is stockpiling antivirals, and encouraging states to do the same. New Hampshire is investigating this option.

**46. Towns are planning for distribution of medication for a pandemic, but what will the medication be?**

Communities are working together throughout the State to plan for emergencies of all types. This includes developing systems to be able to get thousands of doses of medication to people as quickly as possible, should the need arise. In an influenza pandemic, medications distributed would be antivirals or vaccine. However, it is important remember that there will likely be only limited supplies of medication, especially at the start of a pandemic. Recommendations for which groups of people should receive antivirals or vaccine, and at what stage during a pandemic, will be made based on available data and recommendations from both the NH Department of Health and Human Services and the Centers for Disease Control and Prevention.

**47. Is the U.S. Government buying medications in case of a pandemic?**

The U.S. Department of Health and Human Services is stockpiling enough antivirals to treat 25% of the U.S. population should a pandemic occur in the U.S. The Government is also stockpiling masks, medications and vaccines in preparation for a pandemic.

**48. Is New Hampshire buying antivirals in preparation for a pandemic?**

The New Hampshire Department of Health and Human Services proposed to the Legislature that the State develop an antiviral stockpile program, modeled after and complementary to the federal program.

**49. How will public health officials recognize when a pandemic begins?**

Public health officials around the world continue to watch for signs of a pandemic or other unusual illness through systems that have been in place for years. SARS was detected this way. People in one geographic area suddenly becoming ill is a trigger for a rapid and thorough case investigation. A patient's clinical symptoms, as well as laboratory testing, are key factors in determining the cause of any outbreak of illness. In an influenza pandemic, laboratory testing would confirm that a strain of influenza that doesn't usually infect people is the virus that's causing the illness. Case investigations would show that the virus is being transmitted from person-to-person, indicating the start of a pandemic.

**50. If there is a pandemic, how many people will be affected?**

Pandemic strains of flu vary in their severity and there is no way to know exactly how many people will be affected. Estimates from other pandemics, however, are that approximately 25-30% of people will become ill and 1-2% of people will die.

**51. Will schools be closed during a pandemic?**

Closing schools or canceling public events and meetings are possible preventive measures in the early phase of a pandemic. These actions are intended to protect the public's health and, in New Hampshire, will only be taken at the direction of the Governor and the Commissioner of Health and Human Services.

**52. How will I know if a pandemic starts?**

The federal and state governments will notify the public at the beginning of a pandemic and will provide guidelines intended to keep us safe.

**53. Can a pandemic be prevented?**

No one knows for sure. The best way to prevent a pandemic caused by H5N1 would be to eliminate the virus in birds. However, despite efforts by many nations, it is doubtful that this can be achieved within the near future.

**54. Is there a way to stop a pandemic once it starts?**

The best way to stop a pandemic is with a vaccine, but once a pandemic begins, large quantities of vaccine will have to be made to specifically match the virus strain that is causing the pandemic. This process may take months.

**55. How do I care for someone at home with pandemic influenza if it should become necessary?**

Since there is no way to know what the exact health effects of a pandemic virus will be until the pandemic starts, it is not yet possible to say what the best treatment would be. It is a good idea as part of family preparedness to keep a supply of over-the-counter medications on hand for any event or emergency. The American Red Cross developed generic recommendations for home care of flu patients during a pandemic. Public health officials will make more specific recommendations once a pandemic begins.