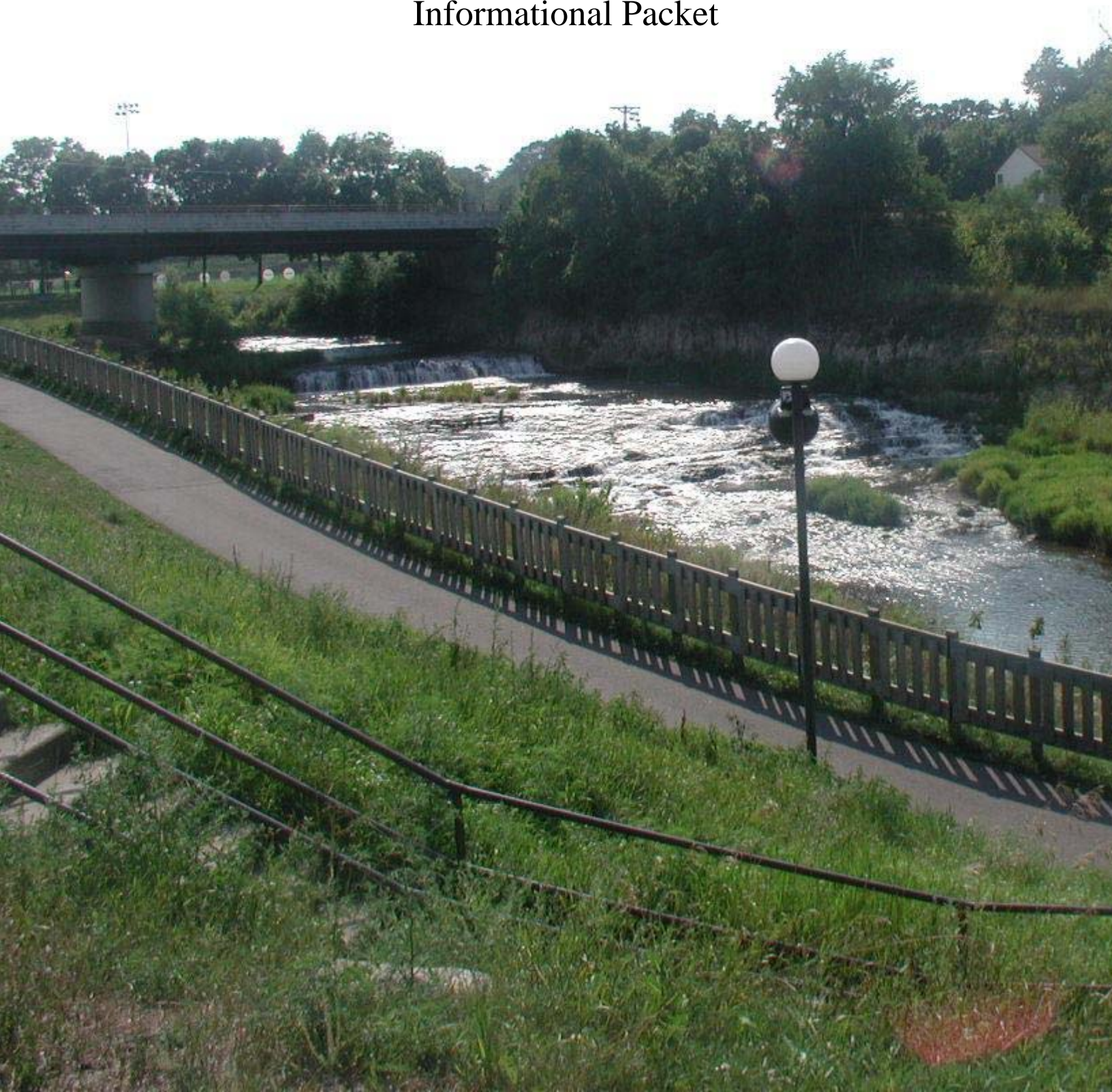


CITY OF CANNON FALLS

Avian/Pandemic

Informational Packet



What Is an Influenza Pandemic?

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza A virus emerges for which there is little or no immunity in the human population, begins to cause serious illness and then spreads easily person-to-person worldwide.

Historically, the 20th century saw 3 pandemics of influenza:

- 1918 influenza pandemic caused at least 675,000 U.S. deaths and up to 50 million deaths worldwide
- 1957 influenza pandemic caused at least 70,000 U.S. deaths and 1-2 million deaths worldwide
- 1968 influenza pandemic caused about 34,000 U.S. deaths and 700,000 deaths worldwide

Characteristics and challenges of a pandemic

1. Rapid Worldwide Spread

- When a pandemic influenza virus emerges, its global spread is considered inevitable.
- Preparedness activities should assume that the entire world population would be susceptible.
- Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

2. Health Care Systems Overloaded

- Most people have little or no immunity to a pandemic virus. Infection and illness rates soar. A substantial percentage of the world's population will require some form of medical care.
- Nations unlikely to have the staff, facilities, equipment and hospital beds needed to cope with large numbers of people who suddenly fall ill.
- Death rates are high, largely determined by four factors: the number of people who become infected, the virulence of the virus, the underlying characteristics and vulnerability of affected populations and the effectiveness of preventive measures.
- Past pandemics have spread globally in two and sometimes three waves.

3. Medical Supplies Inadequate

- The need for vaccine is likely to outstrip supply.
- The need for antiviral drugs is also likely to be inadequate early in a pandemic.
- A pandemic can create a shortage of hospital beds, ventilators and other supplies. Surge capacity at non-traditional sites such as schools may be created to cope with demand
- Difficult decisions will need to be made regarding who gets antiviral drugs and vaccines.

4. Economic and Social Disruption

- Travel bans, closings of schools and businesses and cancellations of events could have major impact on communities and citizens.
- Care for sick family members and fear of exposure can result in significant worker absenteeism.

How Does Seasonal Flu Differ From Pandemic Flu?

Seasonal Flu	Pandemic Flu
Outbreaks follow predictable seasonal patterns; occurs annually, usually in winter, in temperate climates	Occurs rarely (three times in 20th century - last in 1968)
Usually some immunity built up from previous exposure	No previous exposure; little or no pre-existing immunity
Healthy adults usually not at risk for serious complications; the very young, the elderly and those with certain underlying health conditions at increased risk for serious complications	Healthy people may be at increased risk for serious complications
Health systems can usually meet public and patient needs	Health systems may be overwhelmed
Vaccine developed based on known flu strains and available for annual flu season	Vaccine probably would not be available in the early stages of a pandemic
Adequate supplies of antivirals are usually available	Effective antivirals may be in limited supply
Average U.S. deaths approximately 36,000/yr	Number of deaths could be quite high (e.g., U.S. 1918 death toll approximately 675,000)
Symptoms: fever, cough, runny nose, muscle pain. Deaths often caused by complications, such as pneumonia.	Symptoms may be more severe and complications more frequent
Generally causes modest impact on society (e.g., some school closing, encouragement of people who are sick to stay home)	May cause major impact on society (e.g. widespread restrictions on travel, closings of schools and businesses, cancellation of large public gatherings)
Manageable impact on domestic and world economy	Potential for severe impact on domestic and world economy

For additional information on seasonal flu visit: <http://www.hhs.gov/flu/>.

What is avian influenza?

Avian influenza (AI)--the bird flu--is a virus that infects wild birds (such as ducks, gulls, and shorebirds) and domestic poultry (such as chickens, turkeys, ducks, and geese). There is a flu for birds just as there is for humans and, as with people, some forms of the flu are worse than others.

AI strains are divided into two groups based upon the ability of the virus to produce disease in poultry: low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI).

LPAI, or "low path" avian influenza, naturally occurs in wild birds and can spread to domestic birds. In most cases it causes no signs of infection or only minor sickness in birds. These strains of the virus pose little threat to human health.

- HPAI, or "high path" avian influenza, is often fatal in chickens and turkeys.
- HPAI spreads more rapidly than LPAI and has a higher death rate in birds.
- HPAI H5N1 is the type rapidly spreading in some parts of the world.

How is avian influenza spread?

AI is primarily spread by direct contact between healthy birds and infected birds, and through indirect contact with contaminated equipment and materials. The virus is excreted through the feces of infected birds and through secretions from the nose, mouth and eyes.

Contact with infected fecal material is the most common of bird-to-bird transmission. Wild ducks often introduce LPAI into domestic flocks raised on range or in open flight pens through fecal contamination. Within a poultry house, transfer of an HPAI virus between birds also can occur via airborne secretions. The spread of avian influenza between poultry premises almost always follows the movement of contaminated people and equipment.

AI also can be found on the outer surfaces of egg shells and in the case of HPAI, can infect the inside of the egg which includes the yolk and albumen or the egg white. Transfer to eggs is a potential means of AI transmission. Airborne transmission of virus from farm to farm is highly unlikely under usual circumstances.

HPAI can be spread from birds to people as a result of extensive direct contact with infected birds. Broad concerns about public health relate to the potential for the HPAI virus, such as the HPAI H5N1, to mutate, or change into a form that could spread easily from person to person. The U.S. Department of Health and Human Services is aggressively working to ensure public health is protected.

Can I get avian influenza from eating poultry or eggs?

AI is not transmissible by eating poultry or eggs that have been properly prepared. If HPAI were detected in the United States, the chance of infected poultry or eggs entering the food chain would be extremely low because of the rapid onset of symptoms in poultry as well as the safeguards in place, which include testing of flocks, and Federal inspection programs.

Hens infected with HPAI usually stop laying eggs as one of the first signs of illness, and the few eggs that are laid by infected hens generally would not get through egg washing and grading because the shells are weak and misshapen. In addition, the flow of eggs from a facility is stopped at the first suspicion of an outbreak of HPAI without waiting for a confirmed diagnosis. Therefore, eggs in the marketplace are unlikely to be contaminated with HPAI.

Cooking poultry, eggs, and other poultry products to the proper temperature and preventing cross-contamination between raw and cooked food is the key to safety. You should follow the same handling practices that are recommended to prevent illness from common foodborne pathogens such as *Salmonella*:

- Wash hands with warm water and soap for at least 20 seconds before and after handling raw poultry and eggs.
- Clean cutting boards and other utensils with soap and hot water to keep raw poultry or eggs from contaminating other foods.
- Cutting boards may be sanitized by using a solution of 1 tablespoon chlorine bleach and 1 gallon of water;
- Cook poultry to an internal temperature of at least 165 degrees Fahrenheit. Consumers can cook poultry to a higher temperature for personal preference.
- Cook eggs until the yolks and whites are firm. Casseroles and other dishes containing eggs should be cooked to 160 degrees Fahrenheit.
- Use either shell eggs that have been treated to destroy *Salmonella* by pasteurization or another approved method, or pasteurized egg products for recipes that call for eggs that are raw or undercooked when the dish is served. Some examples of these kinds of dishes are Caesar salad dressing and homemade ice cream. Treated shell eggs are available from a growing number of retailers and are clearly labeled. Pasteurized egg products are widely available.

Avian Influenza (Bird Flu)

Avian Flu in Birds is Spreading in Asia and Other Countries

- Avian influenza - commonly called "bird flu" - is an infection caused by influenza viruses that occur naturally in birds.
- Wild birds can carry the viruses, but usually do not get sick from them. However, some domesticated birds, including chickens, ducks, and turkeys, can become infected, often fatally
- One strain of avian influenza, the H5N1 virus, is endemic in much of Asia and has recently spread into Europe. Avian H5N1 infections have recently killed poultry and other birds in a number of countries.
- Strains of avian H5N1 influenza may infect various types of animals, including wild birds, pigs, and tigers.
- Symptoms in birds and other animals vary, but virulent strains can cause death within a few days.

Avian H5N1 Flu in Humans is Currently Very Limited and Not a Pandemic

- Human H5N1 influenza infection was first recognized in 1997 when this virus infected 18 people in Hong Kong, causing 6 deaths.
- The World Health Organization is tracking the number of human cases of the H5N1 virus. See <http://www.pandemicflu.gov/#map>, for a map showing the nations with confirmed human cases and the number of cases.
- Currently, close contact with infected poultry has been the primary source for human infection. Though rare, there have been isolated reports of human-to-human transmission of the virus.
- Genetic studies confirm that the influenza virus H5N1 mutates rapidly. Should it adept to allow easy human-to-human transmission, a pandemic could ensue — it has not done so to date.
- At this time, it is uncertain whether the currently circulating H5N1 virus will lead to a global disease outbreak in humans — a pandemic.
- The reported symptoms of avian influenza in humans have ranged from typical influenza-like symptoms (e.g. fever, cough, sore throat, and muscle aches) to eye infections (conjunctivitis), acute respiratory distress, viral pneumonia and other severe, life-threatening complications.

Preventing and Treating Avian Flu in Humans

- Vaccines to protect humans against H5N1 viruses currently are under development. In addition, research is underway on methods to make large quantities of vaccine more quickly.
- So far, research suggests that two antiviral medicines, oseltamavir (Tamiflu®) and zanamavir (Relenza®), may be useful treatments for H5N1 avian influenza. However, H5N1 viruses are generally resistant to two other available antiviral medications, amantadine and rimantadine, so they cannot be used to treat avian flu.

For more information on the avian H5N1 virus and pandemic influenza visit:
www.pandemicflu.gov.

Frequently Asked Questions (FAQs)

Will a pandemic influenza occur? If so, when will it happen?

Many scientists believe it is a matter of time until the next influenza pandemic occurs. However, the timing and severity of the next pandemic cannot be predicted. Influenza pandemics occurred three times in the past century — in 1918-19, 1957-58, and 1968-69.

What are the symptoms of avian influenza in humans?

People infected with the current strand of the avian virus (H5N1) have shown everything from typical human influenza-like symptoms (fever, cough, sore throat, and muscle aches) to pneumonia, severe respiratory diseases, and other life-threatening complications. Symptoms of avian influenza may depend on which specific virus subtype and strain caused the infection.

What age groups are most likely to be affected during an influenza pandemic?

Although scientists cannot predict the specific consequences of an influenza pandemic, it is likely that many age groups would be seriously affected. The greatest risk of hospitalization and death – as seen during the last two pandemics in 1957 and 1968 and during annual influenza – will be infants, the elderly, and those with underlying health conditions. However, in the 1918 pandemic, most deaths occurred in young adults. Few if any people would have immunity to the virus.

How do people become infected with avian influenza viruses?

Most cases of H5N1 avian influenza infection in humans have resulted from direct or close contact with infected poultry (e.g., domesticated chicken, ducks, and turkeys) or surfaces possibly contaminated from feces of infected birds. For a pandemic of influenza to occur, avian influenza must mutate/change to be able to be passed easily from person to person. A pandemic of influenza can arise from changes that occur in certain kinds of highly pathogenic bird flu but no one knows when or even if this will happen. Today, there have been no reported cases of sustained human-to-human transmission of avian flu.

Are any Americans infected?

No, there have been no human cases of avian influenza identified in the United States and, to date, no Americans have been found to have been infected abroad. The current risk to Americans from the avian influenza outbreak in Asia, Europe, and Africa is low. Avian influenza is not currently found in the United States. Since February 2004, medical and public health personnel have been watching closely to find any such cases.

Can a person become infected with avian influenza A (H5N1) virus by cleaning a bird feeder?

There is no evidence of highly pathogenic H5N1 having caused disease in birds or people in the United States. At the present time, there is no risk of becoming infected with H5N1 virus from bird feeders. Generally, perching birds (Passeriformes) 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 other recommended handling practices will also help to reduce risk associated with potentially contaminated birds or materials.

How is avian influenza in humans treated?

Supportive care is important, as it is for annual influenza. Laboratory studies suggest that two prescription medicines approved for human influenza viruses, Tamiflu™ and Relenza™, may work in treating avian influenza infection in humans. Clinical trials involving people with H5N1 are needed to see how effective they will actually be. In addition, influenza viruses can sometimes become resistant to these drugs, so these medications may not always work.

How is avian influenza detected in humans?

Avian influenza cannot be diagnosed by symptoms alone. Laboratory testing is required. Avian influenza in people is usually diagnosed by collecting a swab from the nose or throat during the first few days of illness. This swab is then sent to a laboratory, where health professionals will either look for avian influenza virus using a molecular test, or will try to grow the virus. Growing avian influenza viruses should only be done in laboratories with biosafety and biocontainment procedures in place. If it is late in the illness, it may be difficult to find an avian influenza virus directly using these methods. If this is the case, it may still be possible to diagnose avian influenza by looking for evidence of the body's response to the virus. However, this is not always an option, because it requires two blood specimens (one taken during the first few days of illness and another taken some weeks later), and it can take several weeks to verify the results.

Is influenza A (H5N1) virus the only avian influenza virus of concern regarding a pandemic?

Although highly pathogenic H5N1 currently poses a pandemic threat, other avian influenza subtypes have infected people in recent years. For example, in 1999, H9N2 infections were identified in Hong Kong; in 2003, H7N7 infections occurred in the Netherlands and in 2004, H7N3 infections occurred in Canada. These examples of other avian influenza viruses that have infected humans demonstrate the potential of an influenza virus to evolve into a pandemic strain. For more information, see <http://www.cdc.gov/flu/avian/gen-info/avian-flu-humans.htm>.

What kinds of wild birds primarily carry avian influenza?

Most avian influenza viruses have been isolated from wild waterfowl (ducks, geese, and swans) and shorebirds (wading birds), gulls, and terns. With rare exceptions, the thousands of flu isolates found in wild birds have been low pathogenic avian influenza and have rarely caused signs of illness in wild birds. The occurrence of avian influenza in wild ducks in North America reaches its height in late summer and early fall. At other times of the year, infection rates are usually less than 1 percent. In shorebirds, infection rates are highest during the spring migration, although in comparison with waterfowl, their infection rates are much lower.

Has the highly pathogenic avian influenza (HPAI) H5N1 virus been detected in migratory birds in the United States?

No. The highly pathogenic avian influenza (HPAI) H5N1 virus has not yet been detected in wild birds or domestic poultry on the North American continent. Low pathogenic forms of H5 and H7 have occurred in both domestic and wild birds in North America and around the world for decades. Researchers do not know what causes a fairly benign H5 or H7 strain to change into a strain that is highly pathogenic. Should the HPAI H5N1 virus be detected in the United States, it does not signal the start of a human pandemic.

Can dogs be infected with avian influenza?

While dogs are not usually susceptible to avian influenza viruses, the avian influenza A (H5N1) virus that emerged in Asia in 2003 has been documented to infect other carnivore species (e.g. cats, tigers, leopards, and stone martens). This has raised concern that this strain of avian influenza A (H5N1) virus may be capable of infecting dogs. An unpublished study carried out in 2005 by the National Institute of Animal Health in Bangkok indicated that dogs could be infected with the virus, but no associated disease was detected. This limited information is not enough to determine definitively whether dogs are susceptible to the virus. The Centers for Disease Control and Prevention (CDC) is coordinating with the U.S. Department of Agriculture (USDA), veterinary associations, and other partners domestically and internationally on this issue and will provide additional information to the public as it becomes available. **NOTE: As long as there is no influenza A (H5N1) in the United States, there is no risk of a U.S. dog becoming infected with this disease.**

Do avian influenza viruses infect humans?

Avian influenza (bird flu) viruses do not usually infect humans, but a number of confirmed cases of human infection with bird flu viruses have occurred since 1997, usually in persons who had close contact with infected poultry. One bird flu virus strain known as avian influenza A (H5N1) has been of particular concern in recent years. The World Health Organization (WHO) maintains situation updates and cumulative reports of human cases of avian influenza A (H5N1). This information is available at <http://pandemicflu.gov/#map>. Additional information is available at <http://www.cdc.gov/flu/avian/gen-info/avian-flu-humans.htm>.

Can migratory birds bring highly pathogenic avian influenza (HPAI) H5N1 to North America?

Migratory birds usually travel thousands of miles over the same routes in their annual migrations. In the Northern Hemisphere, birds begin moving south during August and September of each year. North American migratory birds that spend the winter in Asia may come into contact with potentially infected domestic or wild birds during the winter months.

In spring, migratory birds will migrate north to their breeding grounds in eastern Russia, Alaska, and Canada. Migratory birds infected with the highly pathogenic avian influenza (HPAI) H5N1 returning from Asia could potentially interact with other North American wild birds as they commingle on the breeding grounds.

Bird migration is only one possible route of introduction of HPAI H5N1 into North America. Illegal smuggling of birds and poultry products, travel by infected people, or people traveling with virus-contaminated articles are more direct, and possibly more likely, means of introducing the new strain of HPAI H5N1 virus into the United States.

Where have human cases of H5N1 influenza occurred?

The World Health Organization (WHO) maintains situation updates and cumulative reports of human cases of avian influenza A (H5N1). This information is available at PandemicFlu.gov/#map

Which countries have been affected by outbreaks in poultry?

A complete and updated list of the countries that have experienced outbreaks of poultry infected with H5N1 is available from the World Organization for Animal Health (http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm) and is displayed on a map on the PandemicFlu.gov website. (<http://www.pandemicflu.gov/#map>).

Are migratory birds carrying the virus from one country to another?

The role of migratory birds in the transfer of the Asian H5N1 strain is not clear. H5N1 has been identified in an increasing number of wild birds. The pattern and timing of several outbreaks have not coincided with periods of major migratory movements or migratory routes. However, there are also reports of wild bird mortality that are associated with outbreaks of highly pathogenic avian influenza (HPAI) H5N1 in poultry. It is not known if wild birds were the source of the virus or acquired the virus from poultry; although, once infected they could be a potential source of infection for domestic poultry that are not isolated from wild birds.

What if a wild bird infected with highly pathogenic avian influenza (HPAI) is found on a National Wildlife Refuge?

The response will be determined by the facts of the particular situation. Should it be necessary, refuge managers have the authority to close all or part of a refuge when public health and safety is at risk. As with any disease affecting wild birds, the U. S. Fish and Wildlife Service and State Fish and Wildlife Agencies will closely monitor the situation with other partners such as the U.S. Geological Survey (USGS) National Wildlife Health Center, the agricultural health community, and the public health community.

Has avian influenza been found on any National Wildlife Refuge?

The highly pathogenic avian influenza (HPAI) H5N1 strain of avian influenza has not been detected in North America, including on any National Wildlife Refuge, National Park, or any other Department of the Interior Trust land. Other low pathogenic strains of avian influenza, however, are commonly present in waterfowl and shorebirds.

What are pandemic alert phases and what phase are we in?

The World Health Organization (WHO) developed an alert system (http://www.who.int/csr/disease/avian_influenza/phase/en/index.html) to help inform the world about the seriousness of a pandemic. The alert system has six phases, with Phase 1 having the lowest risk of human cases and Phase 6 posing the greatest risk of pandemic.

The world is presently in **Phase 3** of the Pandemic Alert. This means that there is a new influenza virus subtype causing disease in humans, but is not yet spreading in an efficient (easily transmittable) and sustainable manner among humans.

(Armed Services) Will I be involved in dealing with avian influenza, either domestically or abroad?

At this time it is unknown what an individual service member's involvement in dealing with avian influenza would be. Depending on DoD's requirements to defend the nation against aggressors, service members may be required to assist in either domestic or international efforts to control the disease. Service members will be given instructions regarding personal measures they can take to limit the spread of the disease should it occur.

(Armed Services) Where can I find more information and the most recent alerts about avian influenza?

All U.S. government information is available at <http://www.pandemicflu.gov>. In addition, service members with concerns about avian influenza can call toll-free at (800) 497-6261.

What other strategies will help protect Americans?

In the event of a pandemic, certain public health measures may be important to help contain or limit the spread of infection as effectively as possible. The following actions could include:

- Treating sick and exposed people with antivirals;
- Isolating sick people in hospitals, homes, or other facilities;
- Identifying and quarantining exposed people;
- Closing schools and workplaces as needed;
- Canceling public events; and
- Restricting travel.

In addition, people should protect themselves by:

- Washing hands frequently with soap and water;
- Staying away from people who are sick; and
- Staying home if sick.

How would pandemic flu affect communities and businesses?

If a severe influenza pandemic occurs, many people could become sick at the same time and would be unable to go to work. Many would stay at home to care for sick family members. Schools and businesses might close to try to prevent disease spread. Large group gatherings might be canceled. Public transportation might be scarce. These are examples of challenges that local communities, schools, civic organizations, and businesses will have to work together on to plan for a pandemic response.

How will vaccine be distributed if a pandemic breaks out?

Most likely, the federal government will work with manufacturers, distributors, and states and the states will develop distribution plans at the local level. States are developing and improving plans to distribute a vaccine rapidly. These plans build on experience gained from other emergencies.

In addition, influenza vaccine makers already have systems in place to distribute vaccine. Tens of millions of doses of seasonal influenza vaccine are shipped every year, and during past shortages, vaccine makers have responded to urgent situations.

Fairness in vaccine distribution and use during a pandemic is important. Protecting people at high risk and protecting essential day-to-day services are also important considerations.

What is the Government doing now to prepare for a pandemic flu outbreak?

Federal, State, and local health agencies are making plans to prepare for, respond to, and contain an outbreak of pandemic flu. Activities to prepare for a pandemic flu include:

- Supporting Federal, State, and local health agencies' efforts to prepare for and respond to a pandemic flu outbreak;
- Working with the World Health Organization (WHO) and other nations to help detect and contain outbreaks;
- Developing a national stockpile of antiviral drugs to help treat and control the spread of disease;
- Supporting the manufacture and testing of possible vaccines, including finding more reliable and quicker ways to make large quantities of vaccines;
- Working with other Federal agencies to prepare and to encourage communities, businesses, and organizations to plan for a pandemic influenza outbreak; and
- Providing current accurate information on pandemic flu issues at www.pandemicflu.gov, the official U.S. Government Web site on this topic.

How many influenza vaccine manufacturers have production facilities in the United States?

Currently, Sanofi Pasteur and MedImmune have influenza vaccine production facilities in the United States, although only Sanofi Pasteur's entire production process is based in this country.

The U.S. Department of Health and Human Services (HHS) has made the establishment and expansion of U.S.-based manufacturing facilities for influenza vaccine a key component of its strategy to improve the security of the influenza vaccine supply.

Does the current seasonal influenza vaccine protect me from avian influenza?

No. Influenza vaccine for the 2005-06 season does not provide protection against avian influenza.

How much time does it take to develop and produce an influenza vaccine?

The influenza vaccine production process is long and complicated. Traditional influenza vaccine production for the U.S. relies on long-standing technology based on chicken eggs. This production technology is labor-intensive and takes up to 9 months from start to finish.

The flu vaccine production process is further complicated by the fact that influenza virus strains continually evolve. Thus, seasonal flu vaccines must be modified each year to match the strains of the virus that are known to be in circulation among humans around the world. As a result of this constant viral evolution, seasonal influenza vaccines cannot be stockpiled year to year.

The appearance of an influenza pandemic virus would likely require creation of a vaccine. Researchers are making and testing possible H5N1 vaccines now.

Large amounts of vaccine cannot be made before knowing exactly which virus will cause the pandemic. It could then take up to 6 months before a vaccine is available and in only limited amounts at first. Research is underway to make vaccines more quickly.

How does avian influenza spread among birds?

Infected birds shed influenza virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with contaminated excretions or with surfaces that are contaminated with excretions or secretions. Wild bird avian influenza viruses of low pathogenicity mix with avian viruses in domesticated birds and become highly pathogenic in poultry.

Domestic poultry may become infected with avian influenza virus through direct contact with infected waterfowl or other infected poultry or through contact with surfaces (such as dirt or cages) or materials (such as feces or feed) that have been contaminated with droppings that harbor the low-pathogenicity virus.

Is there a risk to importing pet birds that come from countries experiencing outbreaks of avian influenza A (H5N1)?

The U.S. government has determined that there is a risk to importing pet birds from countries experiencing outbreaks of H5N1 influenza. In order to protect the United States from the introduction of highly pathogenic avian influenza (HPAI) H5N1, the U.S. Department of Agriculture (USDA) maintains trade restrictions and regulations on the importation of poultry and poultry products from HPAI-affected countries with HPAI-affected domestic poultry. The U.S. Department of Homeland Security (DHS) Customs and Border Protection (CBP) is responsible for enforcing these laws. Importation of live poultry, commercial birds, pet birds, and/or “hatching eggs” from countries affected by the virus is not allowed into the United States. USDA continually updates its import procedures to reflect the most current disease status information that could affect U.S. imports.

In addition to import restrictions, USDA quarantines and tests live birds imported into the United States to ensure that they are not carrying any foreign animal diseases such as the HPAI H5N1 virus. All pet birds and live poultry from countries that are allowed to export them into the United States (except Canada) must be quarantined for at least 30 days at a USDA animal import center and tested for the avian influenza virus.

To combat illegal importation of pet birds and poultry, USDA maintains an anti-smuggling program. The officers involved in this program work cooperatively with the CBP at U.S. ports of entry. For a complete list of countries, go to the USDA website <http://www.aphis.usda.gov/vs/ncie/country.html#HPAI>.

What precautions should I take if I live or visit in an area affected by H5N1 bird flu?

- Avoid contact with live birds, chickens, ducks, turkeys, geese, and their feces, feathers, and pens if at all possible. Children, in particular, should be warned and precautions enforced.
- Pet birds should not be kept.
- If preparing poultry, cook it well done before eating.
- Avoid cross contamination of other foods by use of separate kitchen utensils and surfaces exposed to raw poultry.
- Wash hands with soap and water after any poultry contact.
- Be sure, if possible, that poultry does not live near your housing area.
- Do not transport live or dead poultry even if it appears to be healthy.
- Avoid poultry products from areas of infected birds.
- If you must travel to infected areas and work directly with infected birds, poultry or humans, hand washing and shoe and clothing cleaning should be an immediate priority.
- Be sure to wear gloves, a special N-95 mask, goggles, and a disposable gown if you must be in contact with the birds/poultry in enclosed environments where aerosolization of the small virus particles may occur.
- Observe yourself for the development of any respiratory or gastrointestinal symptoms after the visit and check your temperature for a week afterwards, and contact a physician if you have any questions.

Communications and Information are Critical Components of Pandemic Response

Education and outreach are critical to preparing for a pandemic. Understanding what a pandemic is, what needs to be done at all levels to prepare for pandemic influenza, and what could happen during a pandemic helps us make informed decisions both as individuals and as a nation. Should a pandemic occur the public must be able to depend on its government to provide scientifically sound public health information quickly, openly and dependably. For additional information on pandemic influenza visit: www.pandemicflu.gov.

What's Happening Now?

A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity, and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time.

It is difficult to predict when the next influenza pandemic will occur or how severe it will be. Wherever and whenever a pandemic starts, everyone around the world is at risk. Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

Health professionals are concerned that the continued spread of a highly pathogenic avian H5N1 virus across eastern Asia and other countries represents a significant threat to human health. The H5N1 virus has raised concerns about a potential human pandemic because:

- It is especially virulent
- It is being spread by migratory birds
- It can be transmitted from birds to mammals and in some limited circumstances to humans, and
- Like other influenza viruses, it continues to evolve.

Since 2003, a growing number of human H5N1 cases have been reported in Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey, and Vietnam. More than half of the people infected with the H5N1 virus have died. Most of these cases are all believed to have been caused by exposure to infected poultry. There has been no sustained human-to-human transmission of the disease, but the concern is that H5N1 will evolve into a virus capable of human-to-human transmission.

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Since 2003, a growing number of human H5N1 cases have been reported in Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey, and Vietnam. More than half of the people infected with the H5N1 virus have died. Most of these cases are all believed to have been caused by exposure to infected poultry.

There has been no sustained human-to-human transmission of the disease, but the concern is that H5N1 will evolve into a virus capable of human-to-human transmission.

You can prepare for an influenza pandemic now. You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family.

This checklist will help you gather the information and resources you may need in case of a flu pandemic.

1. To plan for a pandemic:

- Store a two-week 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.
- Periodically check your regular prescription drugs to ensure a continuous supply in your home.
- 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.

2. 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.

3. Items to have on hand for an extended stay at home:

Examples of food and non-perishables	Examples of medical, health, and emergency supplies
Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups	Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
Protein or fruit bars	Soap and water, or alcohol-based (60-95%) hand wash
Dry cereal or granola	Medicines for fever, such as acetaminophen or ibuprofen
Peanut butter or nuts	Thermometer
Dried fruit	Anti-diarrhea medication
Crackers	Vitamins
Canned juices	Fluids with electrolytes
Bottled water	Cleansing agent/soap
Canned or jarred baby food and formula	Flashlight
Pet food	Batteries
Other non-perishable items	Portable radio
	Manual can opener
	Garbage bags
	Tissues, toilet paper, disposable diapers

Family Emergency Health Information Sheet

It is important to think about health issues that could arise if an influenza pandemic occurs, and how they could affect you and your loved ones. For example, if a mass vaccination clinic is set up in your community, you may need to provide as much information as you can about your medical history when you go, especially if you have a serious health condition or allergy.

Create a family emergency health plan using this information. Fill in information for each family member in the space provided. Like much of the planning for a pandemic, this can also help prepare for other emergencies.

Family Member Information:

[illegible]

Emergency Contacts Form

Contacts	Name/Phone Number
Local personal emergency contact	
Out-of-town personal emergency contact	
Hospitals near:	
Work	
School	
Home	
Family physician(s)	
State public health department (See list on www.pandemicflu.gov/state/statecontacts.html)	
Pharmacy	
Employer contact and emergency information	
School contact and emergency information	
Religious/spiritual organization	

For More Information

- Visit: www.pandemicflu.gov
- The Centers for Disease Control and Prevention (CDC) hotline, 1-800-CDC-INFO (1-800-232-4636), 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.
- Links to state departments of public health can be found at <http://www.cdc.gov/other.htm#states>.

Personal Protective Equipment and Influenza Outbreaks, including Bird Flu (Avian Influenza)

What is personal protective equipment?

Personal protective equipment is any type of specialized clothing, barrier product, or breathing (respiratory) device used to protect workers from serious injuries or illnesses while doing their jobs. PPE that is intended for use in preventing or treating diseases is subject to regulation by FDA under the device provisions of the Federal Food, Drug, and Cosmetic Act. This includes devices such as surgical gowns, gloves, masks and respirators that are intended to be used by healthcare workers. FDA evaluates the performance of such PPE before it may be marketed (cleared). FDA also makes sure the manufacturers follow good manufacturing practices and address complaints and adverse events associated with their products. Other PPE that is not intended for use in preventing or treating diseases, either by workers or by the general public, is not regulated by FDA. For more information, see **FDA's Role in Regulating PPE** at: <http://www.fda.gov/cdrh/devadvice/overview.html>

How does personal protective equipment help prevent the spread of infection?

Personal protective equipment acts as a barrier between infectious materials and the skin, mouth, nose, or eyes (mucous membranes).

Proper use of FDA-cleared PPE by workers involved in patient care helps prevent the spread of infection because it

- helps protect wearers from infection or contamination from blood, body fluids, or respiratory secretions;
- reduces the chance that healthcare workers will infect or contaminate others; and
- reduces the chance of transmitting infections from one person to another.

Will personal protective equipment cleared by FDA protect against bird flu (avian influenza)?

All personal protective equipment cleared by FDA must be able to block the passage of small particles the size of most infectious materials. FDA is not aware of any studies that specifically test PPE with any influenza virus, and no such data have been submitted to FDA by manufacturers. Thus neither FDA, nor a manufacturer, knows to what extent PPE will protect you against bird flu. Keep in mind that other infection control practices, such as hand-washing, isolating sick patients, and using appropriate coughing etiquette, are also important to minimize your risk of infection.

CDC (Centers for Disease Control and Prevention), not FDA, makes recommendations for infection control practices, including recommendations specific to influenza.

As part of its overall infection control recommendations, CDC recommends that healthcare workers wear the following personal protective equipment during the care of a patient with suspected or confirmed flu (influenza):

- surgical masks
- medical gloves
- surgical gowns

For more information about CDC's recommendations for controlling the spread of the flu, see **What You Should Know about the Flu** at: <http://www.cdc.gov/flu/>

How do I know if personal protective equipment is cleared by FDA?

FDA's Devices@FDA website lets you search for medical devices that FDA has cleared or approved, including personal protective equipment. Note that some of these products may not be available for purchase.

Search for all FDA-cleared surgical masks:

[http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=fxx+or+\(surgical+mask\)](http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=fxx+or+(surgical+mask))

Search for all FDA-cleared gloves:

[http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=lyy+or+lyz+or+lza+or+lzc+or+\(medical+glove\)](http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=lyy+or+lyz+or+lza+or+lzc+or+(medical+glove))

Search for all FDA-cleared gowns:

[http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=fya+or+\(surgical+gown\)](http://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?st=fya+or+(surgical+gown))

Do you recommend using personal protective equipment to help protect against infection when caring for a sick person at home?

The use of PPE alone will not fully protect you from acquiring an infection. Other infection control practices, such as hand washing, isolation of patients and coughing etiquette, are also important to minimize your risk of infection.

CDC (and not FDA) makes recommendations for infection control measures in different circumstances. These may include recommendations for use of PPE. For more

information about CDC's recommendations for controlling the spread of the flu, see What You Should Know about the Flu. <http://www.cdc.gov/flu/>

You can buy personal protective equipment from pharmacies, from medical suppliers, or from sources you find on the Internet. For more information about buying medical products on the Internet, see FDA's website on Buying Medicines and Medical Products Online. <http://www.fda.gov/oc/buyonline/default.htm>

Do I need a prescription to buy personal protective equipment?

No, you do not need a prescription to buy personal protective equipment.

What should I do if my personal protective equipment tears or rips?

If your gloves tear or rip, remove them carefully, wash your hands thoroughly with soap and water or alcohol-based hand rub, and put on new gloves. If your mask or gown rips, remove it carefully, change your clothes if they are soiled, and put on a new mask or gown.

If you think that your gloves, masks, or gowns are defective in some way, you should contact the manufacturer. We also encourage you to inform FDA through the FDA's MedWatch program. <http://www.fda.gov/medwatch/>

How can I find a new supplier if my usual supplier is out of gloves, masks, or gowns?

FDA does not maintain lists of device retailers. However, FDA's Device Listing Database contains lists of all medical devices that are cleared and are in commercial distribution, including personal protective equipment.

surgical masks

[http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=fxx+or+\(surgical+mask\)](http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=fxx+or+(surgical+mask))

medical gloves

[http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=lyy+or+lyz+or+lza+or+lzc+or+\(medical+glove\)](http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=lyy+or+lyz+or+lza+or+lzc+or+(medical+glove))

surgical gowns

[http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=fya+or+\(surgical+gown\)](http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/LSTSimpleSearch.cfm?st=fya+or+(surgical+gown))

Should medical offices keep an extra supply of masks, medical gloves, or gowns in reserve in case of a flu outbreak?

When deciding whether or not to keep personal protective equipment in reserve, you should consider

- your normal usage patterns;
- how those patterns might change in the event of a flu outbreak; and
- how difficult it would be for you to find supplies if your existing supplier could not deliver your supplies as quickly as usual.

Can I reuse personal protective equipment?

Not usually. Almost all personal protective equipment is designed to be used one time for one patient. Dispose of the equipment carefully after each patient use or if the equipment becomes soiled.

The only type of personal protective equipment that can be reused is a surgical gown that is labeled as washable for multiple use.

Can I wash disposable personal protective equipment?

No. You cannot wash disposable personal protective equipment. Washing medical gloves or disposable masks and gowns will destroy their barrier properties so that they will no longer help prevent infection. Dispose of the equipment carefully after each patient use or if the equipment becomes soiled.

The only type of personal protective equipment that can be washed is a surgical gown that is labeled as washable for multiple use.

Can I disinfect disposable personal protective equipment?

No. There is no way to disinfect disposable personal protective equipment. Dispose of the equipment carefully after each patient use or if the equipment becomes soiled.

Can I share personal protective equipment with other users?

No. You should not share personal protective equipment because used equipment will not provide an effective barrier against infection.

If personal protective equipment is manufactured in an area affected by bird flu (avian influenza), is it safe to use?

Yes. Personal protective equipment is manufactured in a clean environment. Even if someone involved in the manufacturing of the equipment was sick, the flu virus does not survive very long outside of the body. People using the equipment days or weeks later would not be at risk of getting the flu from using the equipment.

What should I do if I suspect that a company is making false, misleading or unauthorized claims about how well its product protects against flu?

FDA has not cleared any PPE for use specifically to help prevent (or treat) the flu and does not know of any studies that have tested PPE against influenza virus. If you are concerned about any product claims, you can report them to FDA in the following ways:

- Notify the CDRH Office of Compliance from 8 - 4:30 (Eastern Standard Time) at 240-276-0115.
- Notify the FDA District Office either where the company is located or where you live.

http://www.fda.gov/ora/inspect_ref/iom/iomoradir.html#orafield