Individual
and Family
Guide to

PANDEMIC BIRD FLU - SWINE FLU PREPAREDNESS

Individual and Family

Guide to

Pandemic Bird Flu – Swine Flu Preparedness

6th edition

*Note to business managers and owners

Is your business prepared to survive a pandemic crisis?

Those that are not prepared will suffer devastating financial and human losses, and may not survive at all.

What must your business do to minimize the risk?
How will your suppliers be affected and how will this affect your business?
How will your business function with up to forty percent fewer employees?
How can you prevent the introduction and spread a deadly virus among your workforce or customers?

A business has the responsibility to provide a safe work environment and protect the health of its employees, customers or other visitors. Failure to do so could result in **potential lawsuits** from those that are harmed.

Publicly held corporations have either an implied or explicit obligation to see that business continuity plans are in place to insure the viability of the business and protect the interests of the stakeholders. Providers of services such as power and telecommunications also have a special

responsibility to plan for continued operation in a crisis. The financial industry and others have specific laws that require this. When the next pandemic hits, those that neglect to plan for these contingencies **could suffer financial or criminal penalties** in addition to other financial and human losses.

Many business-specific **precautions must be taken in advance** to minimize the potentially devastating effects of a pandemic. As with any catastrophe, contingency plans must be developed and put in place as soon as possible. Once the outbreak occurs, it will be too late. The plan must address how to keep the business functioning at an acceptable level during the crisis. As much as forty percent of your work force could be affected.

The **Business Guide to Pandemic Preparedness** has been developed to assist businesses with their planning efforts. This guide provides guidelines and tactics that you can put in place to mitigate the destructive effects that a potential pandemic could have on your business. Whether the pandemic is Bird Flu, Swine Flu, SARS or a completely different viral threat, the planning required is the same.

Topics covered include:

- The phases of a pandemic
- How to tell when a pandemic is about to start
- How planning for a pandemic differs from general business continuity and disaster recovery planning
- What would be the impact of a pandemic and how it might affect your business
- Preparations your business must make in advance
- Business policies you must consider implementing during a pandemic

- Critical supplies your business must have on hand for a pandemic
- Actions your business can take after a pandemic begins
- Awareness and training measures for your employees
- Essential techniques to minimize the introduction and spread of the virus
- List of other sources of information and news
  And more…

For information on obtaining the
Business Guide to Pandemic Preparedness go to:
http://www.pandemicinfosite.com/bird-flu-business.htm

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INTRODUCTION

Thank you for showing the foresight and concern for yourself and others by obtaining this important and valuable information.

According to the Department of Health and Human Services, "preparedness planning is imperative to lessen the impact of a pandemic. The unique characteristics and events of a pandemic will strain local, state, and federal resources. It is unlikely there will be sufficient personnel, equipment, and supplies to respond adequately to multiple areas of the country for a sustained period of time."

This purpose of this guide it to provide individuals and families with concise and practical information as to how you can prepare for, and help protect yourself and your family against a potential pandemic, as well as minimize its impact after one has begun. It is not intended for organizations. In the appendix we provide information sources for organizations to refer to. While it includes general information about flu pandemics, the most important sections are the ones explaining what you can do to prepare and protect yourself, both before and during a pandemic.

This guide is brief. While it is written for everyone, it is geared towards those of us who are busy, in a hurry, have a short attention span, or just want the facts fast. Our intention is to keep the general information to a minimum, and focus primarily on actions you can take to protect yourself. For those that are interested in learning more, we provide information sources and web addresses for that purpose.

This is a grim and difficult topic to address. Whatever you can do to inform and protect yourself, family, and friends ultimately helps us all.

We hope you find the information in this guide useful and you will take it seriously.

SECTION1

WHAT IS A PANDEMIC?

A pandemic has the following characteristics:

- It is a global disease outbreak
- Occurs when a new influenza (flu) virus emerges
- People have little or no immunity
- There is no vaccine
- It spreads easily from person to person
- It causes serious illness
- It can sweep across the country and around the world in very short time
- 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 they can not stop it. [1]

A recent history of pandemics

- 1918 pandemic (Spanish Flu), killed an estimated 40 million people
- 1957 pandemic, killed an estimated 2 million people
- 1968 pandemic, killed an estimated 1 million people

Virtually all health experts agree that we are overdue for the next pandemic. Since the population of the world is three times what it was in 1918, in a worst-case scenario, potentially 100 million or more people could die. The Department of Heath and Human Services has estimated that illness would afflict about 30 percent of the overall population. The highest percentage would be among school aged children, approximately 40 percent, and decline with age, with about 20 percent of working adults getting sick.

How it spreads

Thru the air

It spreads by inhalation of airborne droplets released by the coughing and sneezing of an infected person.

By touching contaminated objects or people, then touching your face

Influenza pandemics can rapidly infect virtually all countries. Once international spread begins, pandemics are considered unstoppable, caused as they are by a virus that spreads rapidly by coughing or sneezing. The fact that infected people can shed virus before symptoms appear adds to the risk of international spread via asymptomatic air travelers.

The U.S. Department of Health and Human Services makes the following assumptions:

- The typical incubation period (interval between infection and onset of symptoms) for influenza is approximately 2 days.
- Persons who become ill may shed virus and can transmit infection for up to one day before the onset of illness. Viral shedding and the risk of transmission will be greatest during the first 2 days of illness. Children usually shed the greatest amount of virus and therefore are likely to post the greatest risk for transmission.
- Some persons will become infected but not develop clinically significant symptoms. Asymptomatic or minimally symptomatic individuals can transmit infection.

- On average, infected persons will transmit infection to approximately two other people.
- A pandemic outbreak will last about 6 to 8 weeks, in an affected community.
- Multiple waves (periods during which community outbreaks occur across the country) of illness could occur with each wave lasting 2-3 months. Historically, the largest waves have occurred in the fall and winter, but the seasonality of a pandemic cannot be predicted with certainty.
- The clinical disease attack rate will likely be 30% or higher in the overall population during the pandemic. Illness rates will be highest among school-aged children (about 40%) and decline with age. Among working adults, an average of 20% will become ill during a community outbreak.

What is the current pandemic risk? [2]

A pandemic can start when three conditions have been met: a new influenza virus subtype emerges; it infects humans, causing serious illness; and it spreads easily and sustainably among humans. The H5N1 virus amply meets the first two conditions. It is a new virus for humans (H5N1 viruses have never circulated widely among people), and it has infected more than 400 humans, killing over sixty percent of them. No one will have immunity should an H5N1-like pandemic virus emerge.

At the time of this writing there is a swine flu epidemic going around the world. It is believed to have originated in Mexico and has since spread to North America and beyond. There have been numerous deaths and the toll is mounting.

Regarding the H5N1 virus, all prerequisites for the start of a pandemic have therefore been met except one: the establishment of efficient and sustained human-to-human transmission of the virus. However in 2006 in Indonesia, seven cases of limited person-to-person spread of H5N1 viruses occurred within a family.

The risk that bird or swine flu viruses will acquire this ability will persist as long as opportunities for human infections occur. These opportunities, in turn, will persist as long as the virus continues to circulate in birds and pigs. This situation could endure for some years to come.

How to tell that a pandemic is about to start? [2]

Most likely, if you read or watch the news, you will hear about it.

The most important warning signal comes when clusters of patients with clinical symptoms of influenza, closely related in time and place, are detected. This suggests human-to-human transmission is taking place.

The detection of cases in health workers caring for bird flu or swine flu patients would also suggest human-to-human transmission.

SECTION 2

THE FOUR TYPES OF INFLUENZA OR FLU: [1]

Seasonal (or common) flu is a respiratory illness that can be transmitted person to person. Most people have some immunity, and a vaccine is available.

Avian (or bird) flu is caused by influenza viruses that occur naturally among wild birds. The current threat is the H5N1 variant. It is deadly to domestic fowl and can be transmitted from birds to mammals and humans. Migratory birds are spreading it. It has also recently been detected in Germany in cats and a weasel-like animal called a stone marten. It is extremely infectious. There is no human immunity and no vaccine is available.

Swine flu influenza is a respiratory disease of pigs caused by type A influenza viruses that causes regular outbreaks in pigs. People do not normally get swine flu, but human infections can and do happen. Swine flu viruses have been reported to spread from person-to-person, but in the past, this transmission was limited and not sustained beyond three people. In late March and April 2009, cases of human infection with swine influenza A (H1N1) viruses were first reported in Southern California and near San Antonio, Texas and New York. Cases and numerous deaths have been reported in Mexico. The World Health Organization raised the Pandemic alert level to a 5 and it now appears a pandemic is imminent.

Pandemic flu is virulent flu that causes a global outbreak, or pandemic, of serious illness. Because there is little natural immunity, the disease can spread easily from person to person. At the time this was written, there was no pandemic.

Wild birds worldwide carry avian influenza viruses in their intestines, but usually do not get sick from them. However, avian influenza is very contagious among birds and can make some domesticated birds, including chickens, ducks and turkeys, very sick and kill them.

Infected birds shed influenza virus in their saliva, nasal secretions and feces. Domesticated birds 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 water or feed) that have been contaminated with the virus.

Direct contact with infected poultry, or surfaces and objects contaminated by their feces, can infect people. This is presently considered the main route of human infection.[2]

Health experts fear that, as in past pandemics, an avian flu virus will mutate into a form that will spread rapidly from person to person, resulting in millions of deaths and a serious disruption to the economy.

> March 9, 2006: A human influenza pandemic is unavoidable and will take place sooner or later, affirms David Nabarro, United Nations coordinator for avian and human influenza.

At the time of this writing there is no vaccine for H5N1 bird flu. A pandemic vaccine cannot be produced until a new pandemic influenza virus emerges and is identified. Even after a pandemic influenza virus has been identified, it could take at least six months to develop, test and produce a vaccine. During the 1957 and 1968 pandemics, vaccines were developed, but they arrived too late to have an impact.[2] Antivirals are drugs that may help prevent infection in people at risk and lessen the impact of symptoms in those infected with influenza. It is unlikely that they would substantially modify the course or effectively contain the spread of an influenza pandemic.

Based on past experience, after a pandemic begins, a second wave of global spread should be anticipated within a year.[2]

SYMPTOMS OF AVIAN INFLUENZA IN HUMANS

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, multi-organ failure, and other severe, life-threatening complications.1

A laboratory test is needed to confirm avian influenza in humans.[4]

SYMPTOMS OF SWINE INFLUENZA IN HUMANS

The symptoms of swine flu in people are similar to the symptoms of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue. Some people have reported diarrhea and vomiting associated with swine flu. In the past, severe illness (pneumonia and respiratory failure) and deaths have been

reported with swine flu infection in people. Like seasonal flu, swine flu may cause a worsening of underlying chronic medical conditions. [4]

Seasonal Flu and Pandemic Flu are very different. The following table shows a comparison of the two.[1]

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 500,000, 40 million worldwide)

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

SECTION 3

WHAT WOULD BE THE IMPACT OF A PANDEMIC AND WHAT YOU CAN DO IN ADVANCE TO PREPARE

The effects of a pandemic can be reduced if preparations are made ahead of time. You should prepare for various kinds of social disruption and economic loss.

In order to prepare for a potential pandemic, you must know what are the potential impacts. A pandemic may come and go in waves, each of which can last for six to eight weeks.

Following is a table of likely consequences of an especially severe pandemic, including things you can do to prepare for such a scenario. Much of this data comes from the U.S. Government Department of Health and Human Services. Many of the assumptions are based largely on knowledge gained from the 1918 influenza epidemic, as well as taking present circumstances into consideration.[1]

What to expect	What you can do to prepare
High levels of illness	Practice good health habits The following advice was given by the Department of Health & Human Services web site: • Eat a balanced diet. Be sure to eat a variety of foods, including plenty of vegetables, fruits, and whole grain products. Include low-fat dairy products, lean meats, poultry, fish, and beans. • Drink lots of water and go easy on salt, sugar, alcohol, and saturated fat. • Exercise on a regular basis and get plenty of rest. • Get a flu shot to help protect you from seasonal flu. Flu shots won't protect you against pandemic influenza, but can help you to stay healthy. • Get a pneumonia shot to prevent secondary infection if you are over the age of 65 or have a chronic illness such as diabetes or asthma. For specific guidelines, talk to your health care provider or call the Centers for Disease Control and Prevention (CDC) Hotline at 1-800-232-4636. Make sure that your family's immunizations are up-to-date.[1] 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. Stock up on medicines at home.

High levels of death	Make funeral arrangements in advance and prepare your will. Make sure you have enough life insurance in advance to care for your loved ones. After a pandemic begins the rates will skyrocket and it could be difficult to get. For information on inexpensive insurance protection and free quotes from various companies go to: http://www.pandemicinfosite.com/pandemic-life-insurance.htm
Schools may be closed for an extended period of time	Help schools plan for pandemic influenza. Talk to the school nurse or the health center. Talk to teachers, administrators, and parent-teacher organizations. Plan home learning activities and exercises. Have materials, such as books, on hand. Also plan recreational activities that your children can do at home.
Worker absenteeism as high as 40%, resulting in business closings, or disruptions of normal service: banks, stores, restaurants, government offices, and post offices, law enforcement, utilities, communications and more	Try to arrange to do your banking over the internet, or via ATM machine. Purchase any urgently needed goods in advance and enough food and supplies to last at least several weeks or more. Business must prepare to operate with a reduced staff. People could be sick and quarantined at home, out caring for sick family members, or afraid to go to work. Also those in close contact with sick persons may be quarantined. For more information on business planning see the Business Guide to Pandemic Preparedness. http://www.pandemicinfosite.com/bird-flu-business.htm

Your employer may be closed	Depending on the nature of your job, find out from your employer if it will be possible to work from home. Ask your employer or union about leave policies. Plan for the possible reduction or loss of income. Save money, arrange for credit, loans or financial assistance.
Childcare facilities may be closed	Make alternate arrangements. Keeping children in childcare during a pandemic could be very risky.
Cancellation of public gatherings and worship services	Prepare alternate plans. Consult with organizations in advance to see if they are making any contingency plans for services or events.
Interruption of public transportation, or reduced service	Arrange for alternate transportation, auto, bicycle, walk, etc. Prepare backup plans for taking care of loved ones who are far away.
Interruption of food delivery	Stock extra food at home. Later in this guide is a list of suggested items to have on hand for an extended stay at home
Hospital & health care facilities being overwhelmed, and a shortage of staff	Consider how to care for people with special needs in case the services they rely on are not available.
Shortage of medical supplies, vaccines and antiviral drugs	Stock medical supplies and medicines at home. Examples of medical, health, and emergency supplies for an extended stay at home follow later in this guide.
Quarantining sick and household contacts of infected people	People who are thought to be exposed to the virus could be quarantined for two or more weeks. In most cases they would be restricted to their home. Store a supply of water and food in case you are not able to get out.

Other things you can do

Most of the precautions listed in the previous table have to do with preparing for a human pandemic, where this virus is spreading from person to person. However, in some locales, there is already an outbreak of avian flu spreading among birds and other animals. In this situation, there are additional precautions to be aware of and take.

During a local outbreak of avian influenza:

There is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with secretions or excretions from infected birds. It has also been known to spread to other mammals, including cats that may have eaten an infected bird. The virus can also be carried on the bodies and feet of animals, such as rodents. In this scenario, where many birds are sick or dying, it would be inadvisable to have a picnic on the grass or let your children play on it.

- Avoid outdoor animals
- Avoid all birds including, but not limited to: chickens, ducks, geese, pigeons, quail, turkeys, or any other poultry
- Avoid bird parks, poultry markets, and farms
- Keep your pets and their food inside to avoid expose to infected animals
- Do not swim in water used by birds, ducks, geese, swans, etc.
- Volunteer with local groups to prepare and assist with emergency response

- Find support systems—people who are thinking about the same issues you are thinking about. Share ideas.
- Get involved in your community, as it works to prepare for an influenza pandemic
- Identify volunteers who want to help people in need, such as elderly neighbors, single parents of small children, or people without the resources to get the medical help they will need
- Identify other information resources in your community, such as mental health hotlines, public health hotlines, or electronic bulletin boards
- Be prepared to follow public health guidance

Examples of suggested items to have on hand to prepare for an extended stay at home

Following are examples of non-perishable foods.

Stock enough food for at least two weeks.

Beverages:

- Bottled water, canned juices, fluids with electrolytes, canned or evaporated milk

Canned or jarred foods:

- Ready-to-eat canned meats, tuna, fruits, vegetables, beans, soups, spaghetti sauce, peanut butter, jellies, jams

Dried foods:

- Protein bars, power bars or fruit bars
- Dried fruit, raisins, nuts, trail mix
- Dry cereal, granola, oatmeal, crackers
- Dried soups, pancake mix
- Pasta, rice, instant mashed potatoes

If you have a baby or pets:

- Canned or jarred baby food and formula
- Extra pet food

It is a good idea to look through the non-perishable food products you use regularly, make a list and stock up on extras.

Following are examples of medical, health, and emergency supplies to have on hand.

Medical and health supplies:

- Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
- Bandages, gauze and tape, antibiotic ointment, thermometer, contact lens solution
- Pain relievers and medicines for fever, such as acetaminophen or ibuprofen. Stomach remedies, cough, cold, and flu medicines, fluids with electrolytes, vitamins, anti-diarrhea medication

Cleaning and hygiene and grooming supplies:

- Bleach, dishwashing detergent, antibacterial wipes
- Soap, alcohol-based hand wash or wipes
- Toothpaste, mouthwash, dental floss, shampoo, shaving supplies
- Tissues, toilet paper, disposable diapers, tampons or other sanitary needs

Emergency supplies:

- Candles, flashlights, emergency lighting
- Portable radio, batteries, manual can opener, garbage bags
- Surgical-type face masks: a supply of high-quality HEPA or high efficiency particulate air filter masks. The CDC has recommended that the minimum requirement is a disposable particulate respirator US NIOSH Certified N95, N99 or N100.

(In case you need to go out in a crowded area, get sick or need to care for a sick person)

Click the link below for information on where to get protective masks.

http://www.pandemicinfosite.com/bird-flu-pandemic-masks.htm

It is a good idea to look through the products you use regularly, make a list and stock up on extras.

Create a family emergency health plan

Family Emergency Health Information Sheet[1]

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:

Family Member	Blood Type	Allergies	Past/Current Medical Conditions	Current Medications/ Dosages

Source: U.S. Government Department of Health and Human Services

SECTION 4

WHAT YOU CAN DO AFTER A PANDEMIC BEGINS

During a pandemic, most countries are likely to be affected. Inter-country assistance, as seen during natural disasters or localized disease outbreaks, may be cut back as governments make protecting their own domestic populations their first priority.

The goal is to try to stay healthy, prevent infection and limit its spread.

You should periodically consult with your doctor or health care provider to see if there are any vaccines or antiviral drugs available.

The most common way the virus spreads are:

- **Thru the air,** inhalation of airborne droplets released by the coughing and sneezing of an infected person
- **By touching** contaminated objects or people, then touching your face

There are three primary strategies that must be used to try to prevent infection and limit its spread: continuously ventilate and clean the indoor air, minimize contact with other people and practice extra good hygiene.

Continuously ventilate and clean the indoor air

A main cause of influenza is through inhalation of virus particles that are spread by sick people coughing and sneezing. An infected family member, visitor or co-worker can shed flu virus for two days before showing any symptoms.

During a pandemic flu one of the few ways to reduce the risk of spread to yourself or others is to trap and kill the virus particles with a specialized **Ultraviolet light air purifier**. As the virus is drawn into the purifier the ultraviolet light kills it.

The process typically requires the use of photons in the ultraviolet spectral range. Ultraviolet light in this range is useful for disinfection purposes. It destroys contaminating organic compounds. Most indoor contaminants are organic, including bacteria, viruses, dust mites and fungi.

They should be used at home and in work settings. They come in models for all sized rooms: small, medium, large, even, large industrial and office models are

available. They even make air duct purifiers for home and office central A/C systems. While this is highly recommended in a home, it is absolutely essential in an office environment where many people co-mingle and breath the same foul re-circulated air. More information about various models and prices can be found at the web link below.

www.pandemicinfosite.com/uv-air-purifier.htm

Minimize contact with other people

- This is one of the most important ways to avoid getting sick once the virus is spreading from person to person. Often it takes a day or two for people to show symptoms. Meanwhile they may be sick and contagious. According to the World Health Organization, the typical incubation period (interval between infection and onset of symptoms) for influenza is typically 2-3 days, but can range from 1-7 days. With the H5N1 influenza it ranges from 2-4 days.
- According to the Department of Health and Human Services website, persons who become ill may shed virus and can transmit infection for up to one day before the onset of illness. Viral shedding and the risk of transmission will be greatest during the first 2 days of illness.
- Avoid crowds and contact with other people in public places.
- Stay away from others as much as possible if they are sick.
- Stay home from work and school if you are sick, this helps protect others from getting sick. Consult your doctor if you feel sick.
- Avoid shaking hands.
- Avoid unnecessary kissing of people or promiscuity, practice safe sex or abstain.
- Avoid public transportation: buses, subways, air travel, etc. Infected people can shed virus before symptoms appear, adding to the risk of international spread via asymptomatic air travelers.

- If you must go out in public, wear a protective US NIOSH Certified N-95, N-99, or N-100 respirator mask. Make sure it fits snugly.

If you must travel, the following web sites have further information regarding affected areas and precautions to take. Check for any travel restrictions, alerts or advisories.

http://pandemicflu.gov/travel/

http://www.who.int/csr/disease/avian_influenza/travel2005_11_3/en/index.html

http://www.cdc.gov/travel/other/avian_influenza_se_asia_2005.htm

Practice Extra Good Hygiene

To limit the spread of germs and prevent infection teach the following behaviors to your children and practice them yourself. (These behaviors can also help protect you from more common illnesses, such as the common cold and seasonal flu.)

- Wash your hands frequently and thoroughly with soap and water, or an alcohol-based hand cleaner, for at least 20 seconds. This is especially important after touching potentially contaminated surfaces, shaking someone's hand, before and after food preparation, before eating, or after using the toilet.
- Avoid touching your eyes, nose, or mouth whenever possible.
- Watch young children closely. They are likely to put their hands in their mouths and not wash adequately or at all.
- Germs can linger on inanimate objects such as: computer mice, door knobs, elevator buttons, faucet handles, keyboards, railings, table tops and telephones. Avoid touching them as much as possible. If you go out, carry an alcohol-based antibacterial hand sanitizer to clean your hands immediately after touching things. While wearing gloves may keep the hands clean, they can spread germs just as easily as bare hands. When in a public or work bathroom, use a paper towel to turn off the water.

- Cover coughs and sneezes with tissues. Cough or sneeze into your upper sleeve if you don't have a tissue.
- Put used tissues in a wastebasket.
- Frequently disinfect the kitchen and bathrooms.
- Do not share personal items such as: brush, comb, razor, toothbrush, drinking glasses or eating utensils.
- Do not lick food off your fingers and then touch and serve food to others.
- Avoid direct contact with infected poultry, or surfaces and objects contaminated by their feces.
- Keep your pets indoors. They could get infected and transmit the virus to you
- When preparing food, separate raw meat from cooked or ready-to-eat foods. Don't use the same cutting boards, knives, or utensils that are used on uncooked meats on other foods.
- Poultry products must be thoroughly cooked.

Be very careful when eating poultry or eggs. During an avian flu pandemic, many people will be hesitant to eat poultry or eggs. According to the World Health Organization, in areas experiencing outbreaks, poultry and poultry products can also be safely consumed provided these items are properly cooked and properly handled during food preparation. Following is a web link to a World Health Organization document called: *Prevention of Foodborne Disease: The Five Keys to Safer Food.*

http://www.who.int/foodsafety/publications/consumer/flyer_keys_en.pdf

The H5N1 virus is sensitive to heat. Normal temperatures used for cooking (180° Fahrenheit or 82°Celcius in all parts of the food) will kill the virus. Consumers need to **be sure** that all parts of the **poultry are fully cooked** (no “pink” parts) and that eggs, too, are properly cooked (no “runny” yolks).

Consumers should also **be aware of the risk of cross-contamination**. During food preparation, juices from raw poultry and poultry products should never be allowed to touch or mix with items eaten raw. When handling raw poultry or raw poultry products, persons involved in food preparation should wash their hands thoroughly and clean and disinfect surfaces in contact with the poultry products. Soap and hot water are sufficient for this purpose.[2]

Avoid raw and undercooked eggs (soft or runny) and foods made from them.

In areas experiencing outbreaks in poultry, raw eggs should not be used in foods that will not be further heat-treated, for example by cooking or baking. In normal times, raw eggs pose the risk of getting the disease Salmonella. Eggshells are often contaminated with bird droppings. Some foods made from raw or undercooked eggs include eggnog, mayonnaise, hollandaise sauce, homemade Caesar salad and homemade ice cream.

Other things to be aware of

As covered in the previous section, during an outbreak you should avoid outdoor birds and animals. If you have been in contact with them, immediately wash your hands with soap and water, or use an alcohol hand sanitizer.

If you or a family member becomes sick

Consult your doctor immediately if you feel sick or develop flu symptoms including a fever, cough and body aches; and bird or swine flu is present in your area or you have recently traveled to a part of the world where bird flu or swine occurs. You must be examined and tested to determine if you are infected with a particular type of avian influenza. Be sure to let your doctor know when and where you were traveling and whether you visited any farms or open-air markets.[3]

The reported symptoms of avian influenza in humans have ranged from typical influenza-like symptoms (e.g. exhaustion, fever, cough, sore throat, and muscle aches) to eye infections (conjunctivitis), acute respiratory distress, viral pneumonia, multi-organ failure and other severe, **life-threatening complications**.[1]

How to tell if it is a cold or the flu?

A cold is an upper respiratory infection that affects the nose, throat, ears, and eyes. Symptoms start slowly and build up over twenty-four hours. In a simple cold, fever is mild, and while you may feel uncomfortable, you can carry on with work and school.

Influenza is considered a lower respiratory disorder that affects the throat and large airways of the lungs. Classic flu symptoms arrive suddenly and intensively.

You may feel so awful and exhausted that all you can do is sleep. A body-racking cough begins within a day, adding to your general discomfort. [5]

Some signs and symptoms, such as a runny nose, sneezing and sore throat, may initially seem like a common cold. If you are an adult and have a fever of 101° Fahrenheit, 38.33°Celcius or more, you may have influenza. Your fever may last from one day to as long as a week and, in rare cases, may reach as high as 106° Fahrenheit, 41.1°Celcius. Other signs and symptoms of influenza include:

- Chills and sweats
- Headache
- Dry cough
- Muscular aches and pains, especially in your back, arms and legs
- Fatigue and weakness
- Nasal congestion
- Loss of appetite

Children with the flu tend to have higher fevers than infected adults have — often 103° Fahrenheit to 105° Fahrenheit or 39.44°Celcius to 40.55°Celcius. Influenza may also cause children to feel nauseous and experience vomiting and diarrhea.[3]

Pandemic influenza is highly contagious and lethal. If you or a family member has symptoms of influenza, you must take precautions to help prevent the spread of infection to others. If sick with the flu, do not go to work or send your children to school, or you risk spreading this disease to others. It is important for everyone to follow good hygiene practices as listed in the previous section.

The sick person should be isolated from others. Contact between the sick person and others should be minimized. The area around the sick person and surfaces and objects they touch should be frequently wiped down and disinfected. You should wash your hands thoroughly immediately before and after attending to a sick person. Both the sick person and the caregiver should wear a surgical-type mask to prevent coughing and sneezing from spreading the infection. The CDC recommends either procedure masks (i.e., with ear loops) or surgical masks (i.e., with ties) may be used to contain respiratory secretions (respirators such as N-95 or above). You should consult your health care provider for advice. Click the link below for information on where to get protective masks.

http://www.pandemicinfosite.com/bird-flu-pandemic-masks.htm

APPENDIX

Additional information sources

If a pandemic occurs, it is important to stay informed and up-to-date with current events. Following are some good sources of information.

For information on Pandemic Business Continuity Planning see the Business Guide to Pandemic Preparedness go to:
http://www.pandemicinfosite.com/bird-flu-business.htm

For information on where to get protective masks go to:
http://www.pandemicinfosite.com/bird-flu-pandemic-masks.htm

For information on where to get air purifiers go to:
www.pandemicinfosite.com/uv-air-purifier.htm

For information and free life insurance quotes from various companies go to: http://www.pandemicinfosite.com/pandemic-life-insurance.htm

The US Government's official web site for avian and pandemic flu information http://pandemicflu.gov/ is a good source of information and news. It is managed by the Department of Health and Human Services.

Check here frequently for updates on national and international information on pandemic influenza. Here you can find planning information for:

- Healthcare professions
- Community and faith-based organizations
- Schools
- State and Local Government Planning
- Federal Planning
- Business Planning

Centers for Disease Control and Prevention

http://www.cdc.gov/flu/avian/ or
http://www.cdc.gov/flu/pandemic/

or http://www.cdc.gov/swineflu/

The CDC is another good source for information on avian flu and pandemic influenza. The web site is also available in Spanish at: http://www.cdc.gov/spanish/

They have information for specific groups of people including:

- Health Professionals
- State Health Departments
- Poultry Industry
- Persons Involved in Eradication Activities
- Travelers
- U.S. Citizens Living Abroad
- Airline Industry
- Persons with Possible Exposure

CDC Hotline at: 1-800-CDC-INFO (1-800-232-4636). This line is available in English and Spanish, 24 hours a day, 7 days a week. TTY: 1-888-232-6348. Questions can be e-mailed to cdcinfo@cdc.gov.

Department of Defense, info for US service members

http://deploymentlink.osd.mil/pdfs/info_servmem.pdf

The above web address has answers to Frequently Asked Questions about avian flu of specific interest to U.S. Service members and their families.

Additional information can be found at:
www.deploymentlink.osd.mil

Service members with concerns about avian influenza can call toll-free: 800-497-6261

The World Health Organization
http://www.who.int/csr/disease/avian_influenza/en/

Their web site monitors the world avian flu situation and is a good source of information. They also have advice for travelers.

The U.S. Department of Labor, Occupational Safety & Health Administration

http://www.osha.gov/dsg/guidance/avian-flu.html

The above web site has information and guidance for various types of occupations such as:

- Farm workers/animal handlers
- Laboratory workers
- Medical workers that transport/treat avian flu patients
- Food handlers

- Airline flight crews
- Travelers
- Health care professionals

Listen to local and national radio, watch news reports on television, and read your newspaper and other sources of printed and web-based information.

Talk to your local health care providers and public health officials.

As you begin your individual or family planning, you may want to review your state's planning efforts and those of your local public health and emergency preparedness officials. Links are available to each state department of public health at http://www.cdc.gov/other.htm

Many of the state plans and other planning information can also be found at http://www.pandemicflu.gov/

The Mayo Clinic web site has information about various types of flu.

http://www.mayoclinic.com/health/bird-flu/DS00566

The National Institute of Allergy and Infectious Diseases is a good source for information about various types of influenza.

http://www3.niaid.nih.gov/

http://www3.niaid.nih.gov/news/focuson/flu/default.htm

http://www3.niaid.nih.gov/news/focuson/flu/research/pandemic/

U.S. National Library of Medicine and National Institutes of Health, Medline Plus website, is a good source of news and information about avian flu.

http://www.nlm.nih.gov/medlineplus/flu.html

The White House web page on pandemic flu

http://www.whitehouse.gov/infocus/pandemicflu/

Bird flu information for children and teenagers

The following web sites are sponsored by the Nemours Foundation

Info for children:
http://kidshealth.org/kid/health_problems/infection/bird_flu.html

Info for teenagers:

http://kidshealth.org/teen/infections/colds_and_flu/bird_flu.html

People that work in the agriculture or poultry business or in avian influenza eradication and control, have their own unique preventative measures and guidelines to follow. These are beyond the scope of this guide. They can contact the U.S. Department of Agriculture, Center for Disease Control, and the U.S. Department of Labor, OSHA for more information.

http://www.usda.gov/wps/portal/usdahome?navtype=SU&navid=avian_influenza

http://www.cdc.gov/flu/avian/groups.htm

http://www.osha.gov/dsg/guidance/avian-flu.html

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CDC Center for Disease Control http://www.cdc.gov/flu/avian/

Department of Defense, info for U.S. service members

http://deploymentlink.osd.mil/pdfs/info_servmem.pdf

Mayo Clinic web site http://www.mayoclinic.com/

National Institute of Allergy and Infectious Diseases

http://www3.niaid.nih.gov/news/focuson/flu/default.htm

National Strategy for Pandemic Influenza, Homeland Security Council

http://www.whitehouse.gov/homeland/pandemic-influenza.html

Nemours Foundation web sites for children

Info for children:
http://kidshealth.org/kid/health_problems/infection/bird_flu.html

Info for teenagers:
http://kidshealth.org/teen/infections/colds_and_flu/bird_flu.html

New England Journal of Medicine, Volume 353:1374-1385, September 29, 2005 No. 13

The official U.S. government official web site for information on pandemic and avian influenza http://pandemicflu.gov/

U.S Department of Health and Human Services, pandemic influenza plan

http://www.hhs.gov/pandemicflu/plan/

U.S. Department of Labor, Occupational Safety & Health Administration

http://www.osha.gov/dsg/guidance/avian-flu.html

U.S. National Library of Medicine and National Institutes of Health, Medline Plus website

http://www.nlm.nih.gov/medlineplus/flu.html

The White House web page on pandemic flu

http://www.whitehouse.gov/infocus/pandemicflu/

World Health Organization Epidemic and Pandemic Alert and Response (EPR) web page http://www.who.int/csr/en/

World Health Organization

Responding to the Avian Influenza Pandemic Threat, Recommended Strategic Actions, 2005

http://www.who.int/csr/resources/publications/influenza/who_cds_csr_gip_05_8-en.pdf

Endnotes

[1] The official U.S. government Department of Health and Human Services Web site for information on pandemic and avian influenza. http://pandemicflu.gov/

[2] WHO World Health Organization Epidemic and Pandemic Alert and Response (EPR) http://www.who.int/csr/en/

[2] WHO World Health Organization Epidemic and Pandemic Alert and Response (EPR) http://www.who.int/csr/en/

[3] Mayo Clinic Web Site www.mayoclinic.com

[4] CDC Center for Disease Control http://www.cdc.gov/flu/avian/

[5] Schachter, Neil M.D *The Good Doctors Guide to Colds & Flu*. New York: HarperCollins, 2005 p. 157