

Pandemic Influenza: What You Need to Know

An influenza (flu) pandemic is a widespread outbreak of disease that occurs when a new flu virus appears that people have not been exposed to before. Pandemics are different from seasonal outbreaks of influenza. Seasonal flu outbreaks are caused by viruses that people have already been exposed to; flu shots are available to help prevent widespread illness, and impacts on society are less severe. Pandemic flu spreads easily from person to person and can cause serious illness because people do not have immunity to the new virus. A pandemic may come and go in waves, each of which can last for months at a time. Everyday life could be disrupted due to people in communities across the country becoming ill at the same time. These disruptions could include everything from school and business closings to interruption of basic services such as public transportation and health care. An especially severe influenza pandemic could lead to high levels of illness, death, social disruption, and economic loss.

Seasonal Flu

Seasonal Flu is caused by influenza viruses that are similar to those already affecting people. Symptoms include fever, cough, runny nose, and muscle pain. Deaths can be caused by complications such as pneumonia. Healthy adults usually not at risk for serious complications (the very young, the elderly, and those with certain underlying health conditions are at increased risk for serious complications). Generally causes modest impact on society (e.g., some school closings, encouragement of people who are sick to stay home).

Pandemic Flu

Pandemic Flu caused by a new influenza virus that people have not been exposed to before. Likely to be more severe, affect more people, and cause more deaths than seasonal flu because people will not have immunity to the new virus. Symptoms similar to the common flu may be more severe and complications more serious. Healthy adults may be at increased risk for serious complications. A severe pandemic could change the patterns of daily life for some time. People may choose to stay home to keep away from others who are sick. Also, people may need to stay home to care for ill family and loved ones. Travel and public gatherings could be limited. Basic services and access to supplies could be disrupted.

Some Differences Between Seasonal and Pandemic Flu

1918-1919	Most severe, caused at least 500,000 U.S. deaths and up to 40 million deaths worldwide.
1957-1958	Moderately severe, caused at least 70,000 U.S. deaths and 1–2 million deaths worldwide.
1968-1969	Least severe, caused at least 34,000 U.S. deaths and 700,000 deaths worldwide.

A Historical Perspective

In the last century there were three influenza pandemics. All of them were called pandemics because of their worldwide spread and because they were caused by a new influenza virus. The 1918 pandemic was especially severe. The 1968 pandemic (Hong Kong flu) was the least severe, causing about the same number of deaths as the United States experiences every year with seasonal flu.

Importance and Benefits of Being Prepared

It is difficult to predict when the next influenza pandemic will occur or how severe it will be. The effects of a pandemic can be lessened if preparations are made ahead of time. When a pandemic starts, everyone around the world could be at risk. The United States has been working closely with other countries and the World Health Organization (WHO) to strengthen systems to detect outbreaks of influenza that might cause a pandemic. A pandemic would touch every aspect of society, and so every aspect of society must begin to prepare. State, tribal, and local governments are developing, improving, and testing their plans for an influenza pandemic. Businesses, schools, universities, and other community organizations are preparing plans as well. 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. Many of the state plans and other planning information can be found at www.pandemicflu.gov. The Department of Health and Human Services (HHS) and other federal agencies are providing funding, advice, and other support to your state. The federal government will provide up-to-date information and guidance to the public if an influenza pandemic unfolds. For reliable, accurate, and timely information, visit the federal government's official Web site at www.pandemicflu.gov. The benefits of preparation will be many. States and communities will be better prepared for any disaster. Preparation will bring peace of mind and the confidence that we are ready to fight a flu pandemic. As you plan, it is important to think about the challenges that you might face, particularly if a pandemic is severe. It may take time to find the answers to these challenges. The following are some situations that could be caused by a severe pandemic and possible ways to address them. A series of checklists have been prepared to help guide those efforts, to organize our national thinking and bring consistency to our efforts. You will find two checklists (Pandemic Flu Planning Checklist for Individuals and Families; Family Emergency Health Information Sheet) to help you plan on page 11. Other planning checklists can be found at www.pandemicflu.gov.

Social Disruption May Be Widespread

- Plan for the possibility that usual services may be disrupted. These could include services provided by hospitals and other health care facilities, banks, stores, restaurants, government offices, and post offices.
- Prepare backup plans in case public gatherings, such as volunteer meetings and worship services, are canceled.
- Consider how to care for people with special needs in case the services they rely on are not available.

Being Able to Work May Be Difficult or Impossible

- Find out if you can work from home.
- Ask your employer about how business will continue during a pandemic. (A Business Pandemic Influenza Planning Checklist is available at www.pandemicflu.gov.)
- Plan for the possible reduction or loss of income if you are unable to work or your place of employment is closed.
- Check with your employer or union about leave policies.

Pandemic Influenza – Challenges and Preparation

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 your 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.
- Consider childcare needs.

Transportation Services May Be Disrupted

- Think about how you can rely less on public transportation during a pandemic. For example, store food and other essential supplies so you can make fewer trips to the store.
- Prepare backup plans for taking care of loved ones who are far away.
- Consider other ways to get to work, or, if you can, work at home.

People Will Need Advice and Help at Work and Home

- Think about what information the people in your workplace will need if you are a manager. This may include information about insurance, leave policies, working from home, possible loss of income, and when not to come to work if sick. (A Business Pandemic Influenza Planning Checklist is available at www.pandemicflu.gov.)
- Meet with your colleagues and make lists of things that you will need to know and what actions can be taken.
- Find 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.
- Find support systems—people who are thinking about the same issues you are thinking about. Share ideas.

Be Prepared

Stock a supply of water and food. During a pandemic you may not be able to get to a store. Even if you can get to a store, it may be out of supplies. Public waterworks services may also be interrupted. Stocking supplies can be useful in other types of emergencies, such as power outages and disasters. Store foods that:

- are nonperishable (will keep for a long time) and don't require refrigeration
- are easy to prepare in case you are unable to cook
- require little or no water, so you can conserve water for drinking

(See page 12 for a checklist of items to have on hand for an extended stay at home.)

Stay Healthy

Take common-sense steps to limit the spread of germs. Make good hygiene a habit.

- Wash hands frequently with soap and water.
- When coughing or sneezing cover your mouth and nose with a tissue.
- Put used tissues in a waste basket.
- Cough or sneeze into your upper sleeve if you don't have a tissue.
- Clean your hands after coughing or sneezing. Use soap and water or an alcohol-based hand cleaner.
- Stay at home if you are sick. It is always a good idea to practice good health habits.
- Eat a balanced diet. Be sure to eat a variety of foods, including plenty of vegetables, fruits, and whole grain products. Also 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 Informed

Knowing the facts is the best preparation. Identify sources you can count on for reliable information. If a pandemic occurs, having accurate and reliable information will be critical.

- Reliable, accurate, and timely information is available at www.pandemicflu.gov.
- Another source for information on pandemic influenza is the Centers for Disease Control and Prevention (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 inquiry@cdc.gov.
- Look for information on your local and state government Web sites. Links are available to each state department of public health at www.pandemicflu.gov.
- 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 local health care providers and public health officials.
- No, it won't protect you against pandemic influenza. But flu shots can help you to stay healthy.
- Get a flu shot to help protect yourself from seasonal flu.
- 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.

Will the seasonal flu shot protect me against pandemic influenza?

You have an essential role in preparing and making sure you are informed of prevention activities in your local area. Each community must have plans, each state and each agency of the federal government must work together. The federal government is working to boost our international and domestic disease monitoring, rebuild our vaccine industry, build stockpiles of medicines, and support research into new treatments and medicines. Your state will be taking steps to monitor and build supplies too.

Vaccine

Influenza vaccines are designed to protect against specific flu viruses. While there is currently no pandemic flu in the world, the federal government is making vaccines for several existing bird flu viruses that may provide some protection should one of these viruses change and cause a flu pandemic. A specific pandemic influenza vaccine cannot be produced until a pandemic flu virus strain emerges and is identified. Once a pandemic influenza virus has been identified, it will likely take 4-6 months to develop, test, and begin producing a vaccine. Efforts are being made to increase vaccine-manufacturing capacity in the United States so that supplies of vaccines would be more readily available. In addition, research is underway to develop new ways to produce vaccines more quickly.

Treatment

A number of antiviral drugs are approved by the U.S. Food and Drug Administration to treat and sometimes prevent seasonal flu. Some of these antivirals may be effective in treating pandemic flu. These drugs may help prevent infection in people at risk and shorten the duration of symptoms in those infected with influenza. However, it is unlikely that antivirals alone would effectively contain the spread of pandemic influenza. The federal government is stockpiling antivirals that would most likely be used in the early stages of an influenza pandemic. There are efforts to find new drugs and to increase the supply of antivirals. Antivirals are available by prescription only and not over the counter.

Pandemic Influenza – Prevention and Treatment

- ***Will bird flu cause the next influenza pandemic?***

Avian influenza (bird flu) is a disease of wild and farm birds caused by influenza viruses. Bird flu viruses do not usually infect humans, but since 1997 there have been a number of confirmed cases of human infection from bird flu viruses. Most of these resulted from direct or close contact with infected birds (e.g., domesticated chickens, ducks, and turkeys). The spread of bird flu viruses from an infected person to another person has been reported very rarely and has not been reported to continue beyond one person. A worldwide pandemic could occur if a bird flu virus were to change so that it could easily be passed from person to person. Experts around the world are watching for changes in bird flu viruses that could lead to an influenza pandemic.

- ***Is it safe to eat poultry?***

Yes, it is safe to eat properly cooked poultry. Cooking destroys germs, including the bird flu virus. The United States bans imports of poultry and poultry products from countries where bird flu has been found.

Guidelines for the safe preparation of poultry include the following:

- Wash hands before and after handling food.
- Keep raw poultry and its juices away from other foods.
- Keep hands, utensils, and surfaces, such as cutting boards, clean.
- Use a food thermometer to ensure poultry has been fully cooked. For example, cook a whole chicken to 180°F in an oven set to a minimum of 325°F. More information on how to properly cook poultry can be found at www.usda.gov/birdflu.

Questions and Answers

- ***What types of birds can carry bird flu viruses?***

Wild birds can carry bird flu viruses but usually do not get sick from them. Domesticated birds (e.g., farm-raised chickens, ducks, and turkeys) can become sick with bird flu if they come into contact with an infected wild bird. Domesticated birds usually die from the disease.

- ***What is the U.S. government doing to prepare for pandemic influenza?***

The U.S. government has been preparing for pandemic influenza for several years. In November 2005, the President announced the National Strategy for Pandemic Influenza. Ongoing preparations include the following:

- Working with the World Health Organization (WHO) and with other nations to help detect human cases of bird flu and contain a flu pandemic, if one begins
- Supporting the manufacturing and testing of influenza vaccines, including finding more reliable and quicker ways to make large quantities of vaccines

- Developing a national stockpile of antiviral drugs to help treat and control the spread of disease
- Supporting the efforts of federal, state, tribal, and local health agencies to prepare for and respond to pandemic influenza
- Working with federal agencies to prepare and to encourage communities, businesses, and organizations to plan for pandemic influenza. The Department of Health and Human Services (HHS) has released the HHS Pandemic Influenza Plan (see www.pandemicflu.gov). HHS activities detail the medical and public health response to an influenza pandemic.

1. To plan for a pandemic:

- Store a 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.
- Ask your doctor and insurance company if you can get an extra supply of your regular prescription drugs.
- 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.

Pandemic Flu Planning

Checklist for Individuals and Families

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.

3. Items to have on hand for an extended stay at home: Examples of food and non-perishables

- Ready-to-eat canned meats, fruits, vegetables, and soups
- Protein or fruit bars
- Dry cereal or granola
- Peanut butter or nuts
- Dried fruit
- Crackers
- Canned juices
- Bottled water
- Canned or jarred baby food and formula
- Pet food

Examples of medical, health, and emergency supplies

- Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
- Soap and water, or alcohol-based hand wash
- Medicines for fever, such as acetaminophen or ibuprofen
- Thermometer
- Anti-diarrheal medication
- Vitamins
- Fluids with electrolytes
- Cleansing agent/soap
- Flashlight
- Batteries
- Portable radio
- Manual can opener
- Garbage bags
- Tissues, toilet paper, disposable diapers