

What is a pandemic? You have probably the heard term "epidemic," referring to an outbreak of a contagious disease that spreads rapidly and widely. A flu "pandemic" happens when a new flu virus appears around the world. Because it is new, there is little natural immunity to the virus, and the disease can spread easily from person to person.



Colorado Department of Public Health and Environment



Public Health Plans: Flu Pandemics

Pandemic flu.

You've heard the stories on the news. Maybe you've even read the warnings from public health officials. The prospect of pandemic flu is frightening.

Not only is pandemic flu possible, it is probable. It could happen this year, or it could be many years from now, but it is inevitable.

In the past century, the United States experienced three pandemics of varying severity. Based on that history, another pandemic could cause 1.4 million Coloradans to become seriously ill, and 3,000 to 30,000 people from Colorado to die from influenza (flu) or its complications.

There is much that we don't know yet. But we do know pandemic flu *will* happen. A pandemic could spread worldwide in as little as four days, potentially causing millions to become sick and die, seriously straining healthcare systems and affecting the ability of government and the private sector to provide essential services.

Scientists can't make a vaccine that will prevent pandemic flu until we actually see it. In the meantime, they are making vaccines that are similar to the bird flu virus that has appeared in other parts of the world. If that flu turns into a pandemic, those vaccines could offer some protection. It takes five or six months to make flu vaccine, so it will take some time from when we identify the new virus until we have a vaccine to prevent it.

In the meantime, public health agencies, within Colorado and throughout the country, are making preparations to respond to a pandemic. In addition, there are steps we all can take to help reduce illness and death, some of the very steps we all use to prevent flu each winter.





Colorado Department of Public Health and Environment 4300 Cherry Creek Drive South, Denver, CO 80246-1530 www.cdphe.state.co.us/epr 303.692.2700 800.886.7689 Some characteristics of pandemic flu make it different from others that may cause outbreaks.

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- Anyone can get pandemic flu. One characteristic of a pandemic is that it is a virus for which virtually no one has immunity.
- The disease could cause 30 percent of the population to become sick.
- The disease could cause more severe illness in children.
- A pandemic flu can strike at any time of year, regardless of weather conditions or climate.
- Half of the people who get the disease may need medical care, and 10 percent of those may need to be hospitalized.
- Nearly half of the workforce could be unable to work due to illness or the need to care for sick family members. This could include health care providers such as doctors and nurses, which will make it even harder to take care of all the people who are ill.
- With so many people ill, many services will be interrupted. The people who drive trucks to deliver groceries and mail may be sick; there might not be enough people to provide many services that we are used to having at our fingertips.
- Families and friends will need to help each other care for those who become sick.
 Everyone will need to learn how to prevent illness and care for people at home.

- Public education about the disease and how to care for the ill will be critical. Public health will need to explain the need to use limited supplies of vaccinations, medications, and medical supplies.
- Expect to see security measures at hospitals, health clinics, doctors' offices and sites where medications and vaccinations could be distributed, and even at grocery stores and pharmacies.
- Influenza has an incubation period of as little as two days. The incubation period is the time between when someone is infected by the virus and when he or she shows signs of illness. One day before those signs of illness, people who have the virus can infect others.
- Officials may have to cancel events or large gatherings of people to help limit the spread of the disease.
- A pandemic flu outbreak will occur throughout the country at the same time. There will not be enough resources to deal with widespread disease. The federal government will not be able offer enough assistance to each state and the state government may not be able to help every community. While the federal and state governments will do what they can, communities will have to rely on their own resources for a much longer period of time than other disasters, such as tornadoes.
- There may not be enough medications or any vaccinations to help prevent or treat the disease. It takes five to six months to manufacture flu vaccine, but it probably would become available a little at a time. It may be necessary to ration limited amounts of medications, vaccinations and other health care supplies.

What is public health?



Public health is the science of protecting and improving the health of communities through education, promotion of healthy lifestyles, and research for disease and injury prevention.

Public health professionals try to prevent problems with educational programs for people of all ages, creating policies to improve health and health care, funding and providing services, and conducting research. In contrast, medical caregivers, such as doctors and nurses, mostly treat people after they become sick or injured.

What public health can do

Good health care is important to nearly everyone. Public health is about the health of many groups of people rather than individuals.

Pandemic flu could be a threat to communities large and small. Public health agencies are working to strengthen our ability to respond to a pandemic, in partnership with health care organizations.

In Colorado, there is one state health department and 54 local public health agencies. Some of the local agencies are health departments, and the rest are county nursing services. Colorado laws give more authority to the county health departments than the county nursing services.Visit www.cdphe.state.co.us/oll/locallist.html for a list of

all local public health agencies.

Working with the federal government, the state and local public health agencies in Colorado have important roles in managing a disease outbreak. ✓ Public health works with lawmakers to change laws and regulations that help protect the people of Colorado.



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- ✓ Public health requests federal assistance and resources, determines how limited resources are used and distributes supplies of needed medications, vaccinations and health care supplies.
- ✓ Public health advises the governor during public health emergencies, making recommendations for the use of legal orders prepared in advance if the governor needs to use emergency authority.
- $\sqrt{}$ Public health educates people about behaviors that will protect health.
- $\sqrt{}$ Public health uses scientific resources to watch conditions during a health threat and take action when needed.
- $\sqrt{}$ Public health advises people to stay at home or leave for a safer place during an emergency.
- $\sqrt{}$ Public health plans for emergencies and practices emergency response to be more effective during an emergency.

Public health plans for emergencies

- The Colorado Department of Public Health and Environment works closely with local health agencies and hospitals throughout the state to plan for emergencies and practice emergency response.
- It takes the work of many experts and volunteers to launch an effective response to a public health emergency. The state health department also coordinates its emergency preparedness and response work with local public health agencies, the Colorado Division of Emergency Management and other state agencies, the Colorado National Guard, American Red Cross, Salvation Army and many volunteer organizations.
- All public health emergency plans have your health and safety in mind. The goal of the plans is to minimize illness, death and social disruption. While no document can provide a step-by-step guide for every situation, emergency plans summarize actions to be taken in a public health crisis.

 During a pandemic flu outbreak or any other public health emergency, when the state health
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depart-ment activates its plans, it triggers a number of other actions.

- $\sqrt{}$ Hospitals and doctors will be watching for certain signs of illness, and reporting numbers of sick people to the local public health agency.
- $\sqrt{}$ Laboratories will test for the virus that is causing illness and report results to the state health department.
- $\sqrt{}$ Nursing homes and other residential facilities will be especially careful to use disease prevention measures, and report flu cases to the local public health agency.
- ✓ Veterinarians and the agriculture industry will enforce the highest levels of security to reduce the spread of disease between animals and from animals to humans.

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- √ The Governor's Expert Emergency Epidemic Response Committee will meet to provide expert health advice to the Governor during a pandemic response. The committee will review all available information about the potential influenza pandemic, including directives and recommendations from federal agencies and the international World Health Organization.
- ✓ Public health and public safety agencies all over Colorado will increase staffing to respond to the emergency. The state health department has an emergency operations center to coordinate communication and response activities, and is part of the state emergency operations center as well.
- ✓ The state health department may activate its pharmacy coordinating technology to manage limited supplies of medications or vaccinations. The state also can request medications and supplies from the federal government.
- $\sqrt{}$ Other technology, from radio systems to secured Internet-based systems can be activated to help coordinate resources and staff.

- ✓ Public health, public safety and emergency management all work together in a structure called incident command. The incident command system assigns roles to each staff member, including people to coordinate among agencies, to manage responder operations, to coordinate resource needs, distribute equipment and supplies and to track costs.
- $\sqrt{}$ Staff are assigned to gather and deliver important information to the public, working closely with television, radio and newspapers to get critical information to everyone.
- Dealing with pandemic influenza will not be easy. It is important that everyone learn more about the possible effects of a pandemic and make preparations at home to be independent as long as possible.

Learn more about pandemic flu

www.cdphe.state.co.us/epr www.pandemicflu.gov



What you can do in a flu pandemic

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- Learn more about pandemic flu at **www.pandemicflu.gov**.
- Print your own **PANDEMIC FLU: GET READY** brochure at **ww.cdphe.state.co.us** /bt/panavianinfo.html.
- Learn more about what the Colorado Department of Public Health and Environment and your local public health agency are doing. Find your local agency at www.cdphe.state.co.us/oll/

locallist.html.

• Know where to get information during emergencies. Call the Colorado Health Emergency Line (COHELP) for the Public hotline at 877-462-2911.

Be Healthy

- Wash your hands. Cover your cough.
- Stay home when you are sick.
- Stay away from large crowds.
- Get a flu shot every year.
- Cook meats and poultry properly. Visit **www.usda.gov** to learn how.

√ Be Ready

- Make a ready kit for all emergencies. Keep one at home, one in each car and at your workplace.
- Make a family plan. Include communications plans for staying in contact with loved ones.
- Make a business plan or ask your employer if the company has a business continuity plan.
- Visit **www.readycolorado.com** or **www.redcross.org** for general emergency preparedness advice.