

Avian Influenza (Bird Flu) Frequently Asked Questions

What is Cal State Northridge doing to prepare for a potential outbreak of virulent avian flu?

In fall 2005, CSUN's Student Health Center adopted guidelines for the handling and treatment of potential cases of virulent avian flu, known as the H5N1 strain, consistent with federal and county guidelines. The health center also is modifying its facility to create an isolation room where potential avian flu cases could be evaluated. In addition, CSUN President Jolene Koester in February 2006 formed a university-wide committee charged during the spring semester with developing a plan for university operations and responses in the event of an avian flu outbreak in the area. After the plan is completed, related training for university faculty and staff will begin in summer 2006.

What is the H5N1 strain of bird flu that has been reported in Asia, Europe and elsewhere?

The H5N1 virus is an influenza A virus subtype that occurs mainly in birds, is highly contagious among birds, and can be deadly to them. Transmission to humans thus far has been limited and mostly through direct contact with infected birds or their excretions, although some human-to-human transmission has occurred among close contacts. The virus causes serious and often fatal illness in humans. Work on a vaccine to prevent H5N1 is underway, but no commercially available vaccine is available yet. There are antiviral medicines that might be effective against the virus, but they are not yet available in sufficient supplies to combat a worldwide outbreak.

What is the history of the H5N1 virus?

The H5N1 virus was first detected in a bird in China's Guangdong Province in 1996 and spread to poultry in Hong Kong in 1997, where it also caused the first known human cases. The virus reemerged in Hong Kong in 2003 with human cases. It then spread during 2004 and 2005, reaching birds and humans in other Southeast Asian countries and eventually birds in parts of Europe.

Has there been any indication of the H5N1 virus in the United States as yet?

As of March 2006, the H5N1 virus had **not** been detected in the U.S. among birds or humans.

How does the H5N1 virus differ from seasonal flu viruses that infect humans?

Of the few avian influenza viruses that have crossed the species barrier to infect humans, the H5N1 virus has caused the largest number of reported cases of severe human disease and death. Unlike seasonal influenza, an H5N1 infection may be unusually aggressive, with rapid deterioration and high fatality. Viral pneumonia and multi-organ failure have been common among human cases. A lab test is needed to confirm avian influenza in humans.

What is the risk to human health from the H5N1 virus?

Thus far, the H5N1 virus does not usually infect people. However, because all influenza viruses have the ability to change, health authorities are concerned the H5N1 virus could mutate or mix with common human flu viruses and gain the ability to spread easily from one person to another. Because the H5N1 virus does not commonly infect humans, there is little or no immune protection against it in the human population, creating the potential for a pandemic (worldwide outbreak of disease).

What changes could occur with the H5N1 virus to cause a pandemic?

Three conditions must be met for a pandemic to start: 1) a new influenza virus subtype must emerge; 2) it must infect humans and causes serious illness; and 3) it must spread easily and sustainedly among humans. The H5N1 virus has met the first two conditions. However, the third condition, having efficient and sustained human-to-human transmission, has not occurred yet.

How serious is the current pandemic risk?

The risk of pandemic influenza is serious. With the H5N1 virus now entrenched in large parts of Asia and elsewhere, the risk of more human cases will persist. Each additional human case gives the virus an opportunity to improve its transmission in humans, and thus develop into a pandemic strain.

Are there other causes for concern?

When compared with H5N1 viruses from 1997 and early 2004, H5N1 viruses now circulating are more lethal to experimentally infected mice and to ferrets (a mammal) and survive longer in the environment. H5N1 appears to have expanded its host range, infecting and killing mammals previously considered resistant to infection with avian influenza viruses.

Why are pandemics such feared events?

Influenza pandemics are events that can rapidly infect virtually all countries. Once international spread begins, pandemics are considered unstoppable, because they involve a virus that spreads very rapidly by coughing or sneezing. The fact that infected people can shed virus before symptoms appear adds to the risk of international spread via air travelers who show no symptoms.

What are the predictions relating to a possible H5N1 pandemic?

Assuming the virus causes mild disease, the World Health Organization has predicted the world could experience 2 million to 7.4 million deaths. Projections for a more virulent virus are much higher. A flu pandemic in 1918 killed up to 40 million people, including 675,000 in the U.S.

Is there a vaccine to protect humans from H5N1 virus?

There is no commercial vaccine currently available to protect humans against the current H5N1 virus. Vaccine development efforts and clinical trials are under way. However, large-scale commercial production would not start until after a pandemic has been declared.

What drugs are available for treatment?

Two current drugs, Tamiflu and Relenza, may improve the prospects of survival for human cases of H5N1, if administered early, but clinical data is limited. With present manufacturing capacity, it would take a decade to produce enough Tamiflu to treat 20 percent of the world's population.

Is there a risk of becoming infected with avian influenza by eating poultry?

There is no evidence that properly cooked poultry or eggs can be a source of infection for avian influenza viruses. The H5N1 virus is sensitive to heat, so normal temperatures will kill the virus. In 2004, the U.S. banned importation of poultry from countries affected by bird flu viruses.

Does U.S. government recommend travel restrictions to areas with known H5N1 outbreaks?

The Centers for Disease Control (CDC) has not recommended travel restrictions to affected countries at this time. However, CDC has advised travelers to affected countries to avoid poultry farms, contact with animals in live food markets, and any surfaces that appear to be contaminated.

Sources: World Health Organization, U.S. Centers for Disease Control