

Bird Flu Facts



There are at least 15 different types of avian influenza that routinely infect birds around the world and birds also function as a reservoir for them. The current outbreak of bird flu is caused by a strain known as H5N1, which is highly contagious among birds and rapidly fatal. Unlike many other strains of avian influenza, it can be transmitted to humans, causing severe illness and death.

Influenza viruses are highly unstable and have the ability to mutate rapidly, potentially jumping from one animal species to another. Scientists fear the bird flu virus could evolve into a form that is easily spread between people, resulting in an extremely contagious and lethal disease. This could happen if someone already infected with the human flu virus catches the bird flu. The two viruses could recombine inside the victim's body, producing a hybrid that could readily spread from person to person.

The resulting virus likely would be something humans have never been exposed to before. With no immune defenses, the infection could cause devastating illness, such as occurred in the 1918-19 Spanish flu pandemic, which killed an estimated 40 million to 50 million worldwide.

An influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in several, simultaneous epidemics worldwide with enormous numbers of deaths and illness. With the increase in global transport and communications, as well as urbanization and overcrowded conditions, epidemics due the new influenza virus are likely to quickly take hold around the world.

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Influenza Type	Infects	Infection Severity
A	Birds ,Human	High

B	Human Beings	Medium
C	Human Beings	Low

Human Infection with Avian Influenza Viruses: brief documentation

Avian influenza viruses do not normally infect species other than birds and pigs. The first documented infection of humans with an avian influenza virus occurred in Hong Kong in 1997, when the H5N1 strain caused severe respiratory disease in 18 humans, of whom 6 died. The infection of humans coincided with an epidemic of highly pathogenic avian influenza, caused by the same strain, in Hong Kong's poultry population.

Extensive investigation of that outbreak determined that close contact with live infected poultry was the source of human infection. Studies at the genetic level further determined that the virus had jumped directly from birds to humans. Limited transmission to health care workers occurred, but did not cause severe disease.

Bird Flu Potential

All influenza viruses have the potential to change. It is possible that an avian influenza virus could change so that it could infect humans and could spread easily from person to person. Because these viruses do not commonly infect humans, there is little or no immune protection against them in the human population. If an avian virus were able to infect people and gain the ability to spread easily from person to person, an "influenza pandemic" could begin.

Bird Flu Prevention

Rapid elimination of the H5N1 virus among infected birds and other animals is essential to preventing a major outbreak. The World Health Organization recommends that infected or exposed flocks of chickens and other birds be killed in order to help prevent further spread of the virus and reduce opportunities for human infection. However, the agency warns that safety measures must be taken to prevent exposure to the virus among workers involved in culling.

Bird Flu Symptoms

Bird flu is not the same as SARS (severe acute respiratory syndrome). Although their symptoms are similar, SARS is caused by completely different viruses. Influenza viruses also are more contagious and cannot be as readily contained as SARS by isolating people who have the infection.

Bird flu can cause a range of symptoms in humans. Some patients report fever, cough, sore throat and muscle aches. Others suffer from eye infections, pneumonia, acute respiratory distress and other severe and life-threatening complications.

Bird Flu Transmission

In rural areas, the H5N1 virus is easily spread from farm to farm among domestic poultry through the feces of wild birds. The virus can survive for up to four days at 71 F (22 C) and more than 30 days at 32 F (0 C). If frozen, it can survive indefinitely.

So far in this outbreak, human cases have been blamed on direct contact with infected chickens and their droppings. People who catch the virus from birds can pass it on to other humans, although the disease is generally milder in those who caught it from an infected person rather than from birds.

If the virus mutates and combines with a human influenza virus, it could be spread through person-to-person transmission in the same way the ordinary human flu virus is spread.

Why H5N1 Is Of Particular Concern

H5N1 mutates rapidly and has a documented propensity to acquire genes from viruses infecting other animal species. Its ability to cause severe disease in humans has now been documented. In addition, laboratory studies have demonstrated that isolates from this virus have a high pathogenicity and can cause severe disease in humans. Birds that survive infection excrete virus for at least 10 days, orally and in faeces, thus facilitating further spread at live poultry markets and by migratory birds.

The epidemic of highly pathogenic avian influenza caused by H5N1, which began in mid-December 2003 in the Republic of Korea and is now being seen in other Asian countries, is therefore of particular public health concern. H5N1 variants demonstrated a capacity to directly infect humans in 1997, and have done so again in Vietnam in January 2004. The spread of infection in birds increases the

opportunities for direct infection of humans. If more humans become infected over time, the likelihood also increases that humans, if concurrently infected with human and avian influenza strains, could serve as the “mixing vessel” for the emergence of a novel subtype with sufficient human genes to be easily transmitted from person to person. Such an event would mark the start of an influenza pandemic.

Bird Flu Treatment

Flu drugs exist that may be used both to prevent people from catching bird flu and to treat those who have it. The virus appears to be resistant to two older generic flu drugs, amantadine and rimantadine. However, the newer flu drugs Tamiflu and Relenza are expected to work – though supplies could run out quickly if an outbreak occurs.

Currently there is no vaccine, although scientists are working to develop one. It probably will take several months to complete and may not be ready in time to stop a widespread human outbreak, if one occurs.