Prepare, Don't Panic About Bird Flu

Some questions and answers to help clear up confusion.

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BIRD FLU BASICS

Q: What is bird flu?
A: There are at least 15 different types of avian influenza that routinely infect birds around the world. The current outbreak 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.
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.

Q: Why is it such a concern?
A: 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 defences, the infection could cause devastating illness, such as occurred in the 1918-1919 Spanish flu pandemic, which killed an estimated 40 million to 50 million worldwide.

Q:How does bird flu spread?
A: Infected birds spread the flu virus through their saliva, nasal secretions and faeces.

So far, 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.

Q: Is it safe to eat poultry?
A: Yes, but countries currently experiencing outbreaks should take certain precautions. In areas free of the disease, poultry and poultry products can be consumed as usual.

The H5N1 virus is sensitive to heat. Normal cooking temperatures (70 C in all parts of the food) will kill the virus. Consumers should make sure poultry and eggs are fully cooked.

BIRD FLU IN HUMANS

Q: What are the symptoms in humans?
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.

Q:Is there a vaccine?
A: There currently is no vaccine to protect humans against the H5N1 virus. However, once scientists know the virus that is causing a pandemic, they can quickly make a vaccine. But the U.S. does not have the manufacturing capability to turn out enough to protect the nation in less than a year.

Q:How is bird flu treated in humans?
A: There are flu drugs 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, Tamiflu and Relenza can be effective against flu viruses. But the U.S. has only a few million doses, and no one knows how well the drugs would work during a pandemic.

PANDEMIC CONCERNS

Q: Will there be a pandemic?
A: A pandemic can start under three conditions: a new influenza virus emerges; it infects and causes serious illness to humans; and it spreads easily and sustainably among humans. The H5N1 virus 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 100 humans, killing over half of them. No one will have immunity should an H5N1-like pandemic virus emerge.

All prerequisites for the start of a pandemic have therefore been met except one: human-to-human transmission of the virus. The risk the H5N1 virus will become a pandemic will continue as long as human and bird infections persist.

Experts cannot predict if H5N1 or any flu virus will mutate to pass easily from person to person. But based on historical cycles, they we are due for a pandemic. So most say the question is: When will it happen, not if.

Q: How could bird flu evolve into a pandemic?
A: The most likely scenario is that someone infected with a human flu virus catches the bird flu at the same time, so the two viruses mix their genes and form a hybrid that spreads. The chances of human contact increase with more infected bird species, as H5N1 spreads beyond Asia and into Europe.

Q:Can a pandemic be prevented?
A: 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.

Q: How will I know when a pandemic begins?
A: The World Health Organization, with help from influenza specialists in the U.S. and elsewhere, is closely monitoring flu infections around the globe and will announce when a potential pandemic strain emerges.

Q: How is a pandemic different from regular winter flu?
A: A pandemic occurs when a strain of the influenza virus emerges that is very different from the usual flu strains that circulate every winter. Even healthy people won't have any residual immunity. There were three pandemics in the last century.

Q: During a pandemic, how will I know what kind of flu I have?
A: It will take a doctor's test.

Q: If I suffer symptoms during a pandemic, what should I do?
A: Stay home from work or school. Call your doctor for instructions unless it's an emergency, to avoid exposing others in the waiting room.

Q: Will I be quarantined?
A: The stereotype of forced quarantine isn't likely. After all, flu can spread a day before symptoms appear. But the sick would be isolated — cared for

in separate rooms — to limit spread. Travel restrictions on initially affected countries would be imposed, and people known to be exposed to infection might be asked to stay home for five days or so to watch for symptoms.

PROTECTING YOURSELF

Q:What can people do now to protect themselves?
A: Experts say the best advice is to get involved to be sure your community has a disaster preparedness plan for a pandemic -- including how hospitals and schools would operate.

Q: How can I protect myself during a pandemic?
A: Like in any flu season, common sense hygiene is key. Wash your hands a lot — chances are somebody just sneezed into his hand and then touched the same doorknob you did. Cover coughs and sneezes so you don't spread germs. Sneeze into a tissue or your sleeve; if you use your hands, wash them immediately.

Q: Should I put off travel to countries where bird flu has struck?
A: Health authorities say travel is fine, but avoid contact with live animal markets and poultry farms.

Q: Will a flu shot protect me from the bird flu?
A: No.

Q: Then why should I get vaccinated this winter?
A: Every year, seasonal flu kills 36,000 Americans. Even if you're healthy and likely to recover, regular winter flu can put you in bed for a week.

Q: Should I stockpile the anti-flu drug Tamiflu?
A: No. You won't be able to tell if early symptoms are the flu or some other virus. Using the drug unnecessarily wastes it and can prompt development of Tamiflu-resistant strains. Private hoarding also hinders hospitals' ability to get Tamiflu for patients who really need it, this winter and if a pandemic strikes.

Q: How is the government preparing for a pandemic?
A: Stockpiling Tamiflu, other drugs and supplies, and some experimental H5N1 vaccine to buy time if a similar strain sparks a pandemic. Improving vaccine manufacturing so that one day, vaccine to match whatever super-flu emerges could be produced quickly. Encouraging communities to plan how food shipments, electricity, security and other needs would be taken care of during a pandemic's chaos.

Q: During the SARS outbreak, I saw people in affected countries wearing paper masks. Should I stockpile those?
A: There's no need — unlike with Tamiflu, masks aren't in short supply or hard to make. During a pandemic, the sick will be told to wear so-called surgical or procedure masks, as will doctors and others caring for them.

Sources: China Government, The Associated Press, CDC, WHO, Nature, NBC Chief Science Correspondent Robert Bazell