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Danger of Flu Pandemic Is Clear, if Not Present

By [DENISE GRADY](#)

Fear of the [bird flu](#) sweeping across Asia has played a major role in the government's flurry of preparations for a worldwide [epidemic](#).

That concern prompted President Bush to meet with vaccine makers on Friday to try to persuade them to increase production, and it led Health and Human Services Secretary Michael O. Leavitt to depart yesterday for a 10-day trip to at least four Asian nations to discuss planning for a pandemic [flu](#).

But scientists say that although the threat from the current avian [virus](#) is real, it is probably not immediate.

Dr. Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases, said a bird flu pandemic was unlikely this year.

"How unlikely, I can't quantitate it," Dr. Fauci said. But, he added, "You must prepare for the worst-case scenario. To do anything less would be irresponsible."

Dr. Jeffery Taubenberger, chief of the molecular pathology department at the Armed Forces Institute of Pathology, said, "I would not say it's imminent or inevitable." Dr. Taubenberger said he believes that there will eventually be a pandemic, but that whether it will be bird flu or another type, no one can say.

The Bush administration is in the final stages of preparing a plan to deal with pandemic flu. A draft shows that the country is woefully unprepared, and it warns that a severe pandemic will kill millions, overwhelm hospitals and disrupt much of the nation.

What worries scientists about the current strain of bird flu, known as H5N1, is that it has shown some ominous traits. Though it does not often infect humans, it can, and when it does, it seems to be uncommonly lethal. It has killed 60 people of the 116 known to have been infected.

Alarm heightened on Thursday when a scientific team led by Dr. Taubenberger reported that the 1918 flu virus, which killed 50 million people worldwide, was also a bird flu that jumped directly to humans.

There is a crucial difference, however; the 1918 flu was highly contagious, while today's bird flu has so far shown little ability to spread from person to person. But a mutation making the virus more transmissible could set the stage for a pandemic.

Another concern is that H5N1 has become widespread, killing millions of birds in 11 countries and

dispersing further as migratory birds carry it even greater distances. This month, it was reported in [Romania](#).

Meanwhile, the flu is spreading widely among birds in Asia. And it has unusual staying power, persisting in different parts of the world since it emerged in 1997.

"Most bird flus emerge briefly and are relatively localized," said Dr. Andrew T. Pavia, chief of the division of pediatric infectious diseases at the University of Utah and chairman of the pandemic influenza task force of the Infectious Diseases Society of America. The most worrisome thing about H5N1, Dr. Pavia said, is that it has not gone away.

Some scientists suspect that if H5N1 has not caused a pandemic by now, then it will not, because it must be incapable of making the needed changes. But others say there is no way to tell what the virus will do as time goes on. And they point out that no one knows how long it took for the 1918 virus to develop the properties that led to a pandemic.

Meanwhile, H5N1 seems to be finding its way into more and more species. Once known to infect chickens, ducks and the occasional person, the virus is now found in a wide range of birds and has infected cats.

"It killed tigers at the Bangkok zoo, which is quite remarkable because flu is not traditionally a big problem for cats," Dr. Pavia said.

It has also infected pigs, which in the past have been a vehicle to carry viruses from birds to humans.

"We should be worried but not panicked," Dr. Pavia said.

The timing of the bird flu's emergence also makes scientists nervous, because many believe that based on history, the world is overdue for a pandemic. Pandemics occur when a flu virus changes so markedly from previous strains that people have no immunity and vast numbers fall ill.

"In the 20th century there were three pandemics, which means an average of one every 30 years," Dr. Fauci said. "The last one was in 1968, so it's 37 years. Just on the basis of evolution, of how things go, we're overdue."

Dr. Bruce Gellin, director of the National Vaccine Program Office, said: "You get this sense of compounding risks. First, it's in some birds. Then more. Then more area, then more mammals and then to humans, albeit inefficiently."

In just a few instances, Dr. Gellin noted, the virus does appear to have spread from person to person.

"The only thing it hasn't done is to become an efficient transmitter among humans," he said. "It's done all the other things that are steps toward becoming a pandemic virus."

But not everyone is equally worried about the bird flu.

The fear "is very much overdone, in my opinion," said Dr. Edwin Kilbourne, an emeritus professor of immunology at New York Medical College, who has treated flu patients since the 1957 pandemic and has studied the 1918 flu.

The bird flu, he said, is distantly related to earlier flus, and humans have already been exposed to them, providing some resistance.

Scientists also say that the death rate may not be as high as it appears, because some milder cases may not have been reported.

Dr. Kilbourne and other experts also noted that when viruses become more transmissible, they almost always become less lethal. Viruses that let their hosts stay alive and pass the disease on to others, he explained, have a better chance of spreading than do strains that kill off their hosts quickly.

Moreover, he said, while much has been made of comparisons between the current avian flu and the 1918 strain, the factors that helped increase the flu's virulence in 1918 - the crowding together of millions of World War I troops in ships, barracks, trenches and hospitals - generally do not exist today for humans.

But an essential difference is that people carrying the flu today can board international flights and carry the disease around the world in a matter of hours.

Dr. Kilbourne emphasized that medical care had improved greatly since 1918. Although some flu victims then turned blue overnight and drowned from blood, with fluid leaking into their lungs, many more died of what are now believed to be bacterial infections, which can be treated with [antibiotics](#).

Although the death toll from that flu was high, the actual death rate was less than 5 percent.

In addition, more people now live in cities, where they have probably caught more flus, giving them immunity to later ones. "In 1918, you had a lot of farm boys getting their first contact with city folks who'd had these things," Dr. Kilbourne said.

What researchers wish they could do now is look at a flu virus like H5N1 and predict whether it is heading down the genetic road to becoming a pandemic strain.

"I hope in the future we will be able to do that, work out which mutations are critical," Dr. Taubenberger said. "We know the 1918 strain had everything it needed."

Andrew Pollack and Donald G. McNeil Jr. contributed reporting for this article.