

A man in Mexico died with one form of bird flu, but US officials remain focused on another

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The logo of the World Health Organization is seen at the WHO headquarters in Geneva, Switzerland, June 11, 2019. A death in Mexico was caused by a strain of bird flu that has never before been found in a human, the World Health Organization said Wednesday. Credit: AP Photo/Anja Niedringhaus, File

The mysterious death of a man in Mexico who had one kind of bird flu is unrelated to outbreaks of a different type at U.S. dairy farms, experts say.

Here's a look at the case and the different types of bird flu.

WHAT HAPPENED IN THE MEXICO BIRD FLU CASE?

A 59-year-old man in Mexico who had been bedridden because of chronic health problems developed a fever, shortness of breath and diarrhea in April. [He died a week later](#), and the World Health Organization this week reported it.

The WHO said it was the first time that version of bird flu—H5N2—had been seen in a person.

WHAT'S BEEN HAPPENING IN THE U.S. WITH BIRD FLU?

A different version of bird flu—H5N1—has been infecting [poultry flocks](#) over the last several years, leading to millions of birds being culled. It also has been spreading among all different kinds of animals around the world.

This year, that flu was detected [in U.S. dairy farms](#). Dozens of herd have seen infections, most recently in [Iowa](#) and [Minnesota](#).

The cow outbreak has been tied to [three reported illnesses](#) in farmworkers, one in Texas and two in Michigan. Each had only mild symptoms.

WHAT'S DO THE LETTERS AND NUMBERS MEAN IN BIRD FLU NAMES?

So-called influenza A viruses are the only viruses tied to human flu pandemics, so their appearance in animals and people is a concern. These viruses are divided into subtypes based on what kinds of proteins they have on their surface—hemagglutinin (H) and neuraminidase (N).

Scientists say there are 18 different "H" subtypes and 11 different "N" subtypes, and they appear in scores of combinations. H1N1 and H3N2 are common causes of seasonal flu among humans. There are many versions seen in animals as well.

H5N1, the version that has worried some U.S. scientists lately, historically has been seen mainly in birds, but has in recent years has spread to a wide variety of mammals.

WHAT IS H5N2?

H5N2 has long been seen in Mexican poultry, and farms vaccinate against it.

It's also no stranger to the United States. An H5N2 outbreak hit a flock of 7,000 chickens in south-central Texas in 2004, the first time in two decades a dangerous-to-poultry avian flu appeared in the U.S.

H5N2 also was mainly responsible for a wave outbreaks at U.S. commercial poultry farms in 2014 and 2015.

HOW DANGEROUS IS H5N2?

Over the years, H5N2 has teetered between being considered a mild

threat to birds and a severe threat, but it hasn't been considered much of a human threat at all.

A decade ago, researchers used mice and ferrets to study the strain afflicting U.S. poultry at the time, and concluded it was less likely to spread and less lethal than H5N1. Officials also said there was no evidence it was spreading among people.

Rare cases of animal infections are reported each year, so it's not unexpected that a person was diagnosed with H5N2.

"If you're a glass half full kind of person, you'd say, 'This is the system doing exactly what it's supposed to do: detecting and documenting these rare human infections, where years ago we were stumbling in the dark,'" said Matthew Ferrari, director of Penn State's Center for Infectious Disease Dynamics.

Indeed, Mexico Health Secretary Jorge Alcocer said kidney and [respiratory failure](#)—not the virus—actually caused the man's death.

Some experts said it is noteworthy that it's not known how he caught the man caught H5N2.

"The fact there was no reported contact (with an infected bird) does raise the possibility that he was infected by someone else who visited him, but it's premature to jump to those conclusions," said Richard Webby, a flu researcher at St. Jude Children's Research Hospital in Memphis.

WHAT ABOUT OTHER TYPES OF BIRD FLU?

At this point, H5N2 is still considered a minor threat compared to some of the other kinds of bird flu out there. Most human illnesses have been

attributed to H7N9, H5N6 and H5N1 [bird flu](#) viruses.

From early 2013 through October 2017, five outbreaks of H7N9 were blamed for killing more than 600 people in China. And at least 18 people in China died during an outbreak of H5N6 in 2021, according to the U.S. Centers for Disease Control and Prevention.

H5N1 was first identified in 1959, but didn't really began to worry health officials until a Hong Kong outbreak in 1997 that involved severe human illnesses and deaths.

H5N1 cases have continued since then, the vast majority of them involving direct contact between people and infected animals. Globally, more than 460 human deaths have been identified since 2003, according to WHO statistics that suggest it can kill as many as half of the people reported to be infected.

Like other viruses, H5N1 as evolved over time, spawning newer versions of itself. In the last few years, the predominant version of the virus has spread quickly among a wide range of animals, but counts of human fatalities have slowed.

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