

Pandemic Preparedness

North American agencies collaborate to detect avian influenza.

by Meghan Soderstrom

A late-March government press conference revealed an interagency surveillance plan designed to detect the presence of the highly pathogenic (high-path) H5N1 avian influenza (also referred to as “bird flu”) as soon as it enters North America and outlined steps to protect public health. Speaking at the press conference were Secretary of Agriculture Mike Johanns, then Secretary of the Interior Gale Norton, and Secretary of Health and Human Services (HHS) Mike Leavitt.

“We stand before you today confident that there is no need to *alarm* the public, but there is a need to *inform* the public,” Johanns said. “A detection of the highly pathogenic H5N1 virus in birds does not signal the start of a human pandemic. The rapid spread of the virus does signal that the time is now to expand our early warning system, and that’s what we are doing together.”

The World Health Organization (WHO) explains that an influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in several simultaneous worldwide epidemics.

However, the H5N1 virus is not easily

transmitted person to person, Johanns said. People with direct, extensive contact with raw infected poultry have contracted the virus in other countries, but there has never been a similarly contracted case in the United States. Additionally, there are no known cases when H5N1 has been transmitted from wild birds to humans.

Transmission

Like other viruses, avian influenza viruses can be carried to new locations by people, commercial poultry, smuggled birds or wildlife, equipment, and wild migratory birds. The new monitoring plan focuses specifically on wild migratory birds because, Norton explained, they can serve both as a transmission pathway and an indicator of the virus’ arrival in North America.

Wild birds traveling on the East Asian Flyway winter in Asia, then travel to Alaska and the Pacific Islands to nest in the spring and summer (see Fig. 1). While nesting in those areas, they can mingle with other birds traveling on Pacific or American flyways that would later migrate into the lower 48 states. That nesting interaction could transmit

avian influenza viruses from Asia to North America, Norton explained.

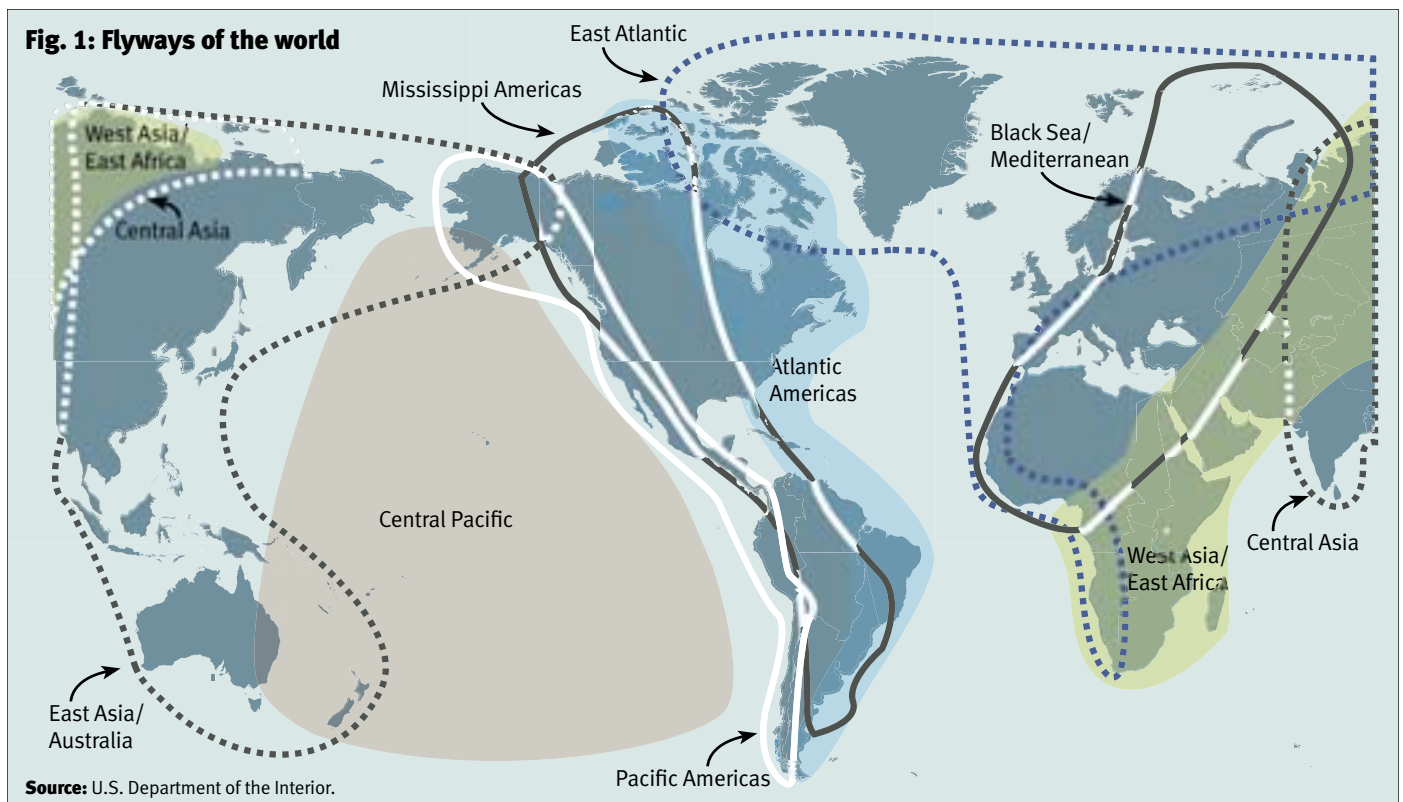
“The Department of the Interior has been detecting avian influenza strains in wildlife for many years,” she said. “We know that there are many strains of bird flu routinely circulating in migratory birds. Most of those viruses are the low-pathogenic (low-path) variety that pose minimal risk to poultry and no risk to people.

“It is increasingly likely that we will detect the highly pathogenic H5N1 strain of avian flu in birds within the U.S. borders, possibly as early as this year,” Norton continued.

Testing, detection

With the goal to collect between 75,000 and 100,000 samples from live and dead wild birds in 2006, the new monitoring plan will employ five major strategies: testing wild birds that are sick or have died; sample testing of live wild birds; sample testing of hunter-killed birds; monitoring and testing of sentinel animals; and testing of environmental samples.

“We anticipate that presumptive H5N1 results may be announced 20 to 100 times this year,” Norton said.



However, those initial tests will not indicate whether the virus is the high-path strain or the low-path strain. Tests initially indicating presumptive H5N1 results will be sent for further testing to the U.S. Department of Agriculture (USDA) National Veterinary Services Laboratories (NVSL) in Ames, Iowa. Definitive results would be expected within five to 10 days.

“It is quite possible that we could have dozens of H5N1 reports with none turning out to be the highly pathogenic variety. These low-pathogenic viruses do not even cause particular problems for birds and are not relevant to human influenza concerns,” Norton said.

The USDA has been testing wild migratory birds for more than 15 years. Since 1998, USDA and the University of Alaska together have tested more than 12,000 wild migratory birds in the Alaska flyways, and all have tested negative for the high-path H5N1 virus. However, finding the common strains of low-path avian influenza in the wild bird populations is not unusual, Johanns said. Since low-path avian influenza is “as common as the human flu,” Johanns said finding a bird with H5N1 would not be cause for concern.

“Some people are surprised to learn that we have responded to high-path AI (avian influenza) three times in domestic poultry in the United States — during the 1920s, the 1980s and again just two years ago,” he continued. However, no significant human illnesses have ever resulted from any of those domestic outbreaks.

Also, detection of high-path H5N1 in wild birds would not mean that an outbreak would occur in commercial poultry, Johanns added.

“The U.S. poultry industry is much better positioned to deal with bird flu than many countries currently affected by the high-path H5N1 virus,” Johanns said. “There are two reasons why I can confidently make this statement. First, our industry is very consolidated. . . . Secondly, biosecurity practices have been a part of the business of raising poultry in the United States for decades.”

Be prepared

Leavitt said that it is important to consider this issue in the proper perspective.

“At this point, if you are a bird, it’s a pandemic. If you’re a

human being, it’s not. It’s as simple as that,” he explained.

Despite the small human risk, Leavitt said that local preparedness is the foundation of pandemic readiness. HHS is focusing on five major areas of preparation: monitoring the disease, developing vaccines, stockpiling countermeasures, coordinating state and local preparedness, and working to effectively communicate information to give people a sense of perspective and planning.

Community organizations are encouraged to collaborate with public health agencies now to prepare for any future influenza pandemic. A checklist is available at www.pandemicflu.gov/plan/faithcomchecklist.html to help community organizations develop and improve their pandemic response and preparedness plans.

“Any community that fails to prepare with the expectation that the federal government will at the last moment be able to come to the rescue will be tragically wrong,” Leavitt said. “Not because the federal government lacks will, not because we lack wallet, but because there is no way in which 5,000 different communities can be responded to simultaneously.

“Preparation is a continuum; every day we need to get better prepared,” he continued. “We’re better prepared today than we were a day ago; and we’ll be better prepared tomorrow than we are today.”

Final thoughts

Johanns asked the public to remember two important points: First, a detection of the high-path H5N1 virus does not signal the start of a pandemic. Second, properly prepared poultry is safe to eat, since cooking kills the virus.

For more information visit www.pandemicflu.gov.

