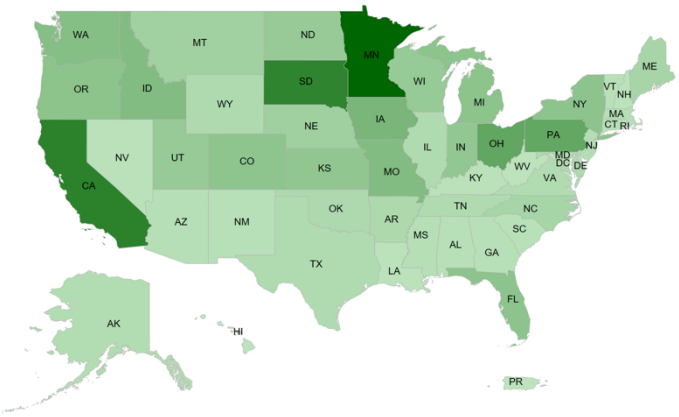
FACT SHEET:
Highly Pathogenic Avian Influenza

COALITION TO STOP FLU



States with affected domestic poultry as of March 20, 2025. Map: USDA.

Highly pathogenic avian influenza (HPAI) is circulating in the United States and spreading globally, posing a risk to wildlife, agriculture, and public health.

An HPAI outbreak began in the United States in 2022 when a Eurasian strain of highly pathogenic H5N1 influenza virus was detected in Indiana and subsequently spread across the continent. As of March 2025, the outbreak has led to the death or depopulation of more than 168 million birds. It has also spilled into cattle for the first time, affecting dairy operations in at least 17 states. All states have identified the virus in domestic and wild birds. This outbreak is considered the deadliest in U.S. history.

Has this happened before?

Highly pathogenic influenza outbreaks have occurred infrequently in the United States in the last 100 years. In 2014-2015, a severe U.S. outbreak caused mainly by H5N2 and H5N8 strains impacted wild and domestic birds in more than 20 states and led to the death or depopulation of more than 50 million poultry. Direct costs to the U.S. government were nearly $900 million, and estimated extended economic costs were $3.3 billion.

What makes this outbreak so concerning?

Simply put, the scope and breadth. This outbreak of HPAI has devastated many wild bird species, including species like bald eagles that have been a conservation success. A particularly concerning feature of this outbreak is the extensive number of wild mammalian species infected, including bears, bobcats, dolphins, seals, and mountain lions—often with fatal results. This raises concerns that the virus is mutating to infect mammals more effectively. Notably, more than 100 domestic cats have had confirmed infections, with high mortality.

In March 2024, HPAI was detected in dairy cattle, the first known natural incidence of HPAI in this species. Multiple human infections have now occurred among farmworkers. This spillover raises the risk of extensive transmission in this and other livestock species, and creates further opportunity for spillover into people and potentially dangerous mutations.

What is the risk to public health?

New flu strains can enter the population through animal-to-human transmission and become pandemics. The first known spillover of highly pathogenic flu occurred in Hong Kong in 1996 from an H5N1 virus. Since then, nearly 900 people are known to have been infected with H5N1, mostly individuals with occupational exposure to poultry. About half of these cases were lethal. (H7N9 is also causing fatalities internationally.) The first U.S. human cases of this strain occured in 2022, linked to a poultry farm. Since then, 70 U.S. individuals have been infected—most with exposure to dairy cattle or poultry—and one person has died. Studies also suggest the possibility of asymptommatic human infection.

In general, H5N1 infection in humans has required close contact with infected animals, and widespread human-to-human transmission of these viruses has not occurred. However, H5N1 remains a serious concern due to the known proclivity of influenza viruses to mutate and the serious respiratory infection, multi-organ failure, and high case fatality rate that can result.

What is avian influenza?

Avian influenza viruses are a pathogen in the "Influenza A" group. Waterfowl that migrate long distances, like ducks, geese, and gulls, are the primary natural reservoir of avian influenza viruses.

Low Pathogenic Avian Influenza: LPAI
Most strains of avian influenza cause few or no clinical signs in birds. These *low pathogenic* strains circulate widely among wild birds, and their migratory flight patterns may result in the spread of the viruses to other wild birds or to domestic poultry. LPAI H5N1 is an example of a low pathogenic strain that has been circulating in North America for some time.

Highly Pathogenic Avian Influenza: HPAI
Some strains of avian influenza have gained the ability to spread rapidly among birds and cause severe respiratory signs and high mortality–up to 100%. These are known as *highly pathogenic* strains. HPAI viruses can cause disease in wild birds and domestic poultry such as chickens, ducks, and turkeys. The Asian strain of H5N1 is a highly pathogenic strain. H7N9 variants can also cause severe disease.

How does it spread?

Wild birds harboring influenza A viruses can spread disease through direct contact with other birds and by shedding virus in feces and respiratory droplets. In this way, they may expose other wild birds, backyard poultry, and even indoor commercial flocks where biosecurity protocols have been breached. In the case of the U.S. dairy infections, the virus was probably introduced to one or more farms from wild birds, and then spread among cows via milk or respiratory droplets, and from farm to farm by transport of cattle within and between states. Researchers still do not fully understand how the virus transmits to and among domestic animals.

What does it mean for the United States?

HPAI is an internationally notifiable disease. It leads to high mortality among sick birds, and healthy birds are typically culled to contain outbreaks. It also has major fiscal and trade implications. The Department of Agriculture does not allow poultry vaccination but traditionally requires rapid depopulation of infected and exposed flocks and establishment of restricted control areas, including quarantine of affected premises. The appearance of the virus in dairy cattle has implications for the milk supply and, as concern over the risk of zoonotic spillover rises, for pandemic preparedness.

What can be done?

Congress can adequately fund USDA, APHIS, ASPR, and CDC, as well as pass the *Influenza Act* and the *Pandemic and All-Hazards Preparedness Act*. The Administration can advance more aggressive H5N1 surveillance strategies and ensure that effective pandemic medical countermeasures, including vaccines, antivirals, diagnostics, and personal protective equipment, are available in the Strategic National Stockpile.

For more information about the Coalition to Stop Flu and our H5N1 policy recommendations, contact Executive Director Niki Carelli at niki@daschlegroup.com or visit flucoalition.org.

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