# US bird flu outbreak raises fears of possible new pandemic



Health experts have raised alarms over the escalating bird flu crisis in the United States, warning that the country may be on the verge of another pandemic as the H5N1 avian influenza outbreak spirals out of control on farms nationwide. The virus has already had a widespread impact, affecting nearly 1,000 dairy cow herds and resulting in over 70 confirmed human infections, including the first fatality linked to the virus in the US.

Since the initial detection of H5N1 in January 2022, more than 168 million poultry have either died from the disease or been culled to contain its spread. The outbreak has hit all 50 states, triggering significant disruptions in the poultry industry and causing egg prices to soar. In total, over 12,875 wild and domestic bird flocks across the country have been infected, with the virus recently spreading to cattle herds in 17 states, the largest concentrations being in California and Colorado.

Despite the surge in human cases this year — the highest in over two decades — there is no evidence so far of sustained human-to-human transmission. The majority of infections have been reported among farmworkers who had direct exposure to infected poultry or dairy cows. However, some cases, such as those involving an adult in Missouri and a child in California, remain unexplained in terms of the source of infection. Experts warn that the possibility of mutations or reassortments—where bird flu viruses exchange genetic material—could increase the risk of the virus achieving greater transmissibility among humans.

Dr Peter Palese, director at the Global Virus Network (GVN) and a leading influenza researcher, emphasised the urgent need to reinforce biosecurity and public education. Speaking to the Daily Mail, he said, "Initiatives should focus on enhancing biosecurity measures in agricultural settings and educating the public about safe handling of poultry products and potential risks associated with contact with infected animals."

Another GVN director, Dr Ab Osterhaus, who specialises in animal viruses, highlighted the importance of vaccine development. "Given the growing circulation of H5N1 among mammals, the GVN calls for urgent efforts to understand and interrupt transmission in cattle through herd management and potential vaccination," he said. He also stressed the need for improved surveillance efforts at the animal-human interface to enable effective prevention strategies.

The outbreak has also extended beyond birds and cattle. More than 400 wild mammals, including red foxes, skunks, seals, and raccoons, have been infected across the US since May 2022. These animals are thought to contract the virus by feeding on the carcasses of infected birds. In addition, cases have been detected in pigs, raising concerns as swine can serve as ‘mixing vessels’ for influenza viruses by hosting both bird and human flu strains, potentially facilitating the emergence of new hybrid viruses.

Wastewater surveillance data reflects the extent of viral circulation in the environment. Analysis from monitoring over 250 sites across the US revealed traces of the bird flu virus in 60 locations, with some states like California and Iowa recording positive samples in over 80 percent of tested wastewater.

The US government has taken some steps to combat the outbreak. It currently holds a stockpile of approximately 20 million bird flu vaccines that match the H5N1 strain and can produce an additional 100 million doses if needed. Antiviral medications, such as oseltamivir (marketed as Tamiflu), are also available and have been used to treat infected individuals, including the first fatal case in Louisiana earlier this year. That patient, an elderly individual with underlying health conditions who had contact with sick birds in a backyard flock, succumbed to severe respiratory symptoms. Genetic analysis suggested that the virus mutated within the patient’s body, potentially contributing to the severity of the illness.

Earlier this year, the Biden Administration awarded Moderna a $590 million contract to develop an H5N1 vaccine for humans. However, recent reports have raised concerns about potential funding cuts under the new administration. Meanwhile, the White House’s Office of Pandemic Preparedness and Response (OPPR), established after the COVID-19 pandemic to coordinate outbreak responses, has reportedly been left with minimal staffing and funding. Pandemic planning responsibilities have transitioned to the National Security Council, raising concerns from critics about transparency and oversight.

Public health experts and organisations such as the GVN are urging governments worldwide to take immediate action. They advocate for tighter biosecurity protocols on farms, mandatory and expanded testing of livestock and humans, and accelerated vaccine development efforts. The US Department of Agriculture (USDA) has mandated that companies handling raw milk must provide samples for H5N1 testing to address concerns about viral contamination in unpasteurized milk products.

Health authorities caution that despite a lack of confirmed human-to-human transmission so far, the highly dynamic nature of the virus demands vigilance to prevent a scenario akin to the early stages of the COVID-19 pandemic. Dr Marc Johnson, a virologist at the University of Missouri, noted on social media platform X (formerly Twitter), "This virus might not go pandemic, but it is really trying hard, and it sure is getting a lot of opportunities."

With bird flu now established in multiple animal populations across the US and continuing to mutate, the situation remains fluid and complex. Continued surveillance, research, and coordinated response efforts will be critical as authorities seek to manage the outbreak and mitigate its impact on animal and human health.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

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* <https://www.cdc.gov/bird-flu/spotlights/h5n1-response-03192025.html> - Confirms 989 infected dairy herds across 17 states as of March 2025, supporting the scale of livestock impact mentioned.
* <https://www.aao.org/education/bird-flu> - Documents 70 human H5N1 cases in the U.S. (as of March 2025), aligning with the reported surge in human infections.
* <https://www.capecod.gov/2025/01/17/h5n1-bird-flu-understanding-the-risk/> - Details the January 2025 Louisiana fatality and mentions risks associated with raw milk/pet food exposure in animals.
* <https://www.gavi.org/vaccineswork/everything-you-need-know-about-bird-flu> - Supports claims about H5N1's pandemic potential, first U.S. human death in 2025, and industry impacts including egg price fluctuations.
* <https://www.cdc.gov/bird-flu/situation-summary/index.html> - Reiterates CDC's low public health risk assessment while acknowledging the lack of human-to-human transmission.
* <https://www.dailymail.co.uk/health/article-14657121/experts-issue-terrifying-warning-usa-pandemic-virus.html?ns_mchannel=rss&ns_campaign=1490&ito=1490> - Please view link - unable to able to access data