H5N1 bird flu continues to spread among US dairy cattle

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The H5N1 bird flu virus continues to spread among multiple species across the US, most notably dairy cattle. The adaptation of the virus from birds to over 40 mammalian species including humans is highly concerning. If the virus were to develop sustained, efficient human-to-human transmission, it could cause the next pandemic.

A study published in Nature this week demonstrated that H5N1 was transmitted long distance between two dairy farms 280km (174 miles) apart in different US states, Texas and Kansas. There was no transportation of animals between the farms.

Because the same two distinct strains of the virus were found at both farms, it suggests bi-directional transmission back and forth between the farms, although the researchers could not rule out unidirectional transmission of both strains in either direction.

The findings of the study were of sufficient immediate concern that the journal took the unusual step of making an unedited version of the manuscript available immediately on its web site while the final editing and publication process is underway.

The study also found that birds and other mammals in the vicinity of farms were infected with H5N1, including dead cats, raccoons and blackbirds. The analysis of viral genomes obtained from the animals demonstrated cattle-to-cat and cattle-to-racoon transmission of the virus.

According to the study, "The spillover of HPAI [highly pathogenic avian influenza] H5N1 into dairy cattle and evidence for efficient and sustained mammal-to-mammal transmission are unprecedented."

Diego Diel, co-corresponding author of the study, said: "The concern is that potential mutations could arise that could lead adaptation to … potential efficient transmission in humans in the future." Diel is associate professor of virology and director of the Virology Laboratory at Cornell University.

According to the latest update this week from the Centers for Disease Control and Prevention (CDC), H5N1 has officially infected cattle at a total of 171 farms in 13 states. In the past 30 days, there have been 39 cattle infected in six states. Colorado continues to be at the epicenter of the epidemic with 28 of those infected cattle.

In addition to dairy cattle, a cluster of human cases associated with poultry farms is ongoing in Colorado. The cluster began as five cases in poultry workers who had been slaughtering chickens in order to prevent further spread of the virus. A sixth case was reported shortly thereafter.

Late last week the Colorado Department of Public Health & Environment (CDPHE) announced three additional cases from a second poultry operation in the same county, bringing the total to nine human infections from the two poultry operations.

Combined with one human case at a dairy farm in Colorado, the total number of cases of human H5N1 in the state is 10. The CDPHE published a data table on these cases, which it says it will update every Tuesday and Thursday. The table currently displays 10 confirmed human cases, zero presumptive cases, and approximately 134 individuals tested.

Rick Bright, an immunologist and virologist, wrote on social media: "There is no good way to see the count going higher in humans. We must do more to control and stop the spread of #H5N1 asap."

These alarming developments resulted in Colorado becoming the first state to mandate weekly testing of milk samples for H5N1 at all dairy farms in the state. Otherwise, testing is only mandatory at the federal level

for interstate shipment of dairy cattle (and even then, farms are only required to test dairy cattle that are currently producing milk).

At present, the virus is transmitted through direct contact with fluids or tissues of infected animals or with items contaminated with them. The long-range transmission between farms cited in the recent study could have occurred via shared farm equipment, vehicles, or personnel that were contaminated. No study has yet documented aerosol transmission of H5N1 in mammals, although it cannot be ruled out entirely at present.

One potential route for humans to contract the virus is drinking raw milk. Studies have demonstrated high levels of virus in the milk of infected dairy cattle, resulting from the high affinity or "tropism" of the virus for the mammary glands of cattle and other mammals. One study found that cats became infected with H5N1 after drinking contaminated milk.

Pasteurization kills the virus, and thus pasteurized milk is currently not a concern. However, approximately 4.4 percent of Americans drink raw, unpasteurized milk at least once per year. These individuals could become infected with H5N1 excreted by infected dairy cattle.

The totally inadequate response of the Biden administration, both capitalist parties and all state governments to combat the spread of bird flu—which has a documented case fatality rate of above 50 percent in humans—is an indictment of the capitalist system.

States and the federal government could mandate testing of all dairy herds and the entire milk supply, mandate the provision of personal protective equipment (PPE) for dairy and poultry workers, conduct careful contact tracing and testing of infected and exposed individuals, offer H5N1 vaccination to workers, ban the sale of raw milk in affected states, and fund more studies of the virus, including more serological testing of humans across the country to determine whether and how often people have been infected with the virus in the past.

However, none of this is being done due to the subordination of public health to private profit. The constant redirection of profits to a handful of billionaires and the military-industrial complex has left the country's entire public health system grossly underfunded and in a condition wholly unprepared to address this growing crisis and potential pandemic.

As has been the case with the ongoing COVID-19 pandemic, the capitalist response to the growing spread of H5N1 bird flu has been to prioritize the preservation of profits and uninterrupted operations of the dairy and poultry industries over controlling H5N1. Under these conditions, even if H5N1 fails to materialize as the next global pandemic, another pathogen surely will in the near future.

The working class is the only social force capable of reorganizing society to prioritize the public's health and prevent future pandemics, including the growing threat of an H5N1 pandemic. To do so, it must organize and carry out its own independent socialist political program.