Highly Pathogenic Avian Influenza

Epidemiology Data Brief

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Issue 4

What We Know

January 26th, 2022 the United States Department of Agriculture's (USDA) Animal and Plant Health Inspective Service (APHIS) announced the first detections of Highly Pathogenic Avian Influenza (HPAI), hemagglutinin five neuraminidase one (H5N1), in wild birds in the U.S since 2016.

On February 9th, 2022 APHIS confirmed the presence of HPAI H5N1 in a commercial flock of turkeys in Dubois County, Indiana. Since then, there have been more infected flocks reported across Indiana, Kentucky, and thirteen other states in the U.S. The poultry industry in the United States has not been affected by HPAI since 2020.[2]

In addition to wild and commercial birds, there have also been HPAI infections reported in backyard flocks. The first reported infection was in a mixed species backyard flock located in Virginia the week of February 14th, 2022. Since then, other backyard flocks reported infections in Ohio, Kanas, Illinois and in eighteen other states.

According to the Centers for Disease Control and Prevention, this Avian Influenza outbreak does not present and immediate public health concern.[1]

Notably, no human cases of Avian Influenza H5N1 have ever been detected in the U.S.

Federal and state partners are currently working cooperatively with the poultry industry, private backyard flock owners, and wild fowl conservationists to monitor the spread of HPAI through surveillance and testing.

What is Avian Influenza?

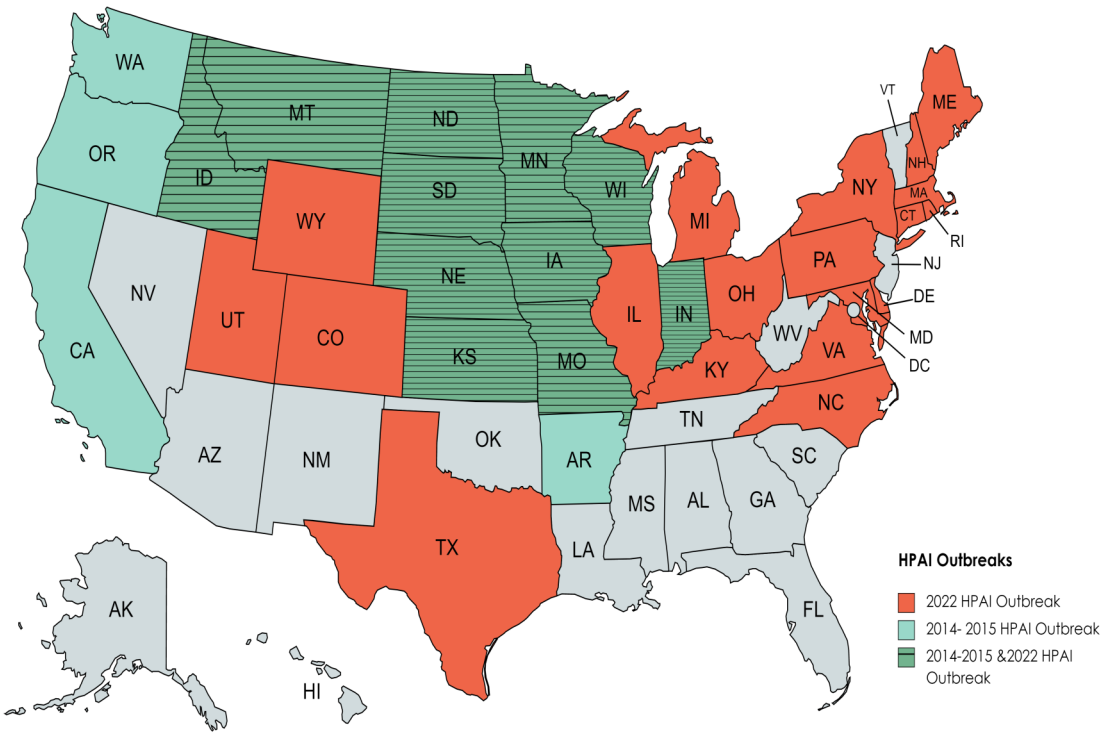
Avian Influenzas are respiratory viruses that affects birds. They occur naturally among wild aquatic birds worldwide, and can infect domestic poultry and other species of birds. Some wild birds can be infected with Avian Influenza, but have no symptoms. However, it is very contagious among wild and domesticated birds. Avian Influenza can be deadly to certain types of domesticated bird species, such as chickens, turkeys and ducks.[1]

Avian Influenza in Domesticated Birds

Domesticated birds can become infected with Avian Influenza through direct contact with infected birds, their respiratory droplets, fecal droppings, and dust, or through contact with surfaces contaminated with the virus.

After an exposure, domestic birds infected with a Highly Pathogenic Avian Influenza (HPAI) virus can begin showing severe respiratory symptoms that may lead to death within as little as 48 hours.[1] There is no preventive vaccine or treatment available. Strict biosafety measures can help prevent domestic flocks from being exposed include reporting sick birds, limiting interactions with wild birds and using clean drinking water.

Current and Previous HPAI Outbreaks in Domestic Birds In the U.S



Map developed using data provided by the CDC and APHIS

Avian Influenza in Humans

Avian Influenza viruses typically do not infect humans, but rare cases of human infection have been documented. People can be exposed if they have close contact with an infected bird, the infected bird's respiratory droplets or fecal droppings. Avian Influenza is not spread to people through the consumption of properly cooked and prepared poultry or wild fowl. Additionally, human to human transmission of Avian Influenza is extremely rare.[1]

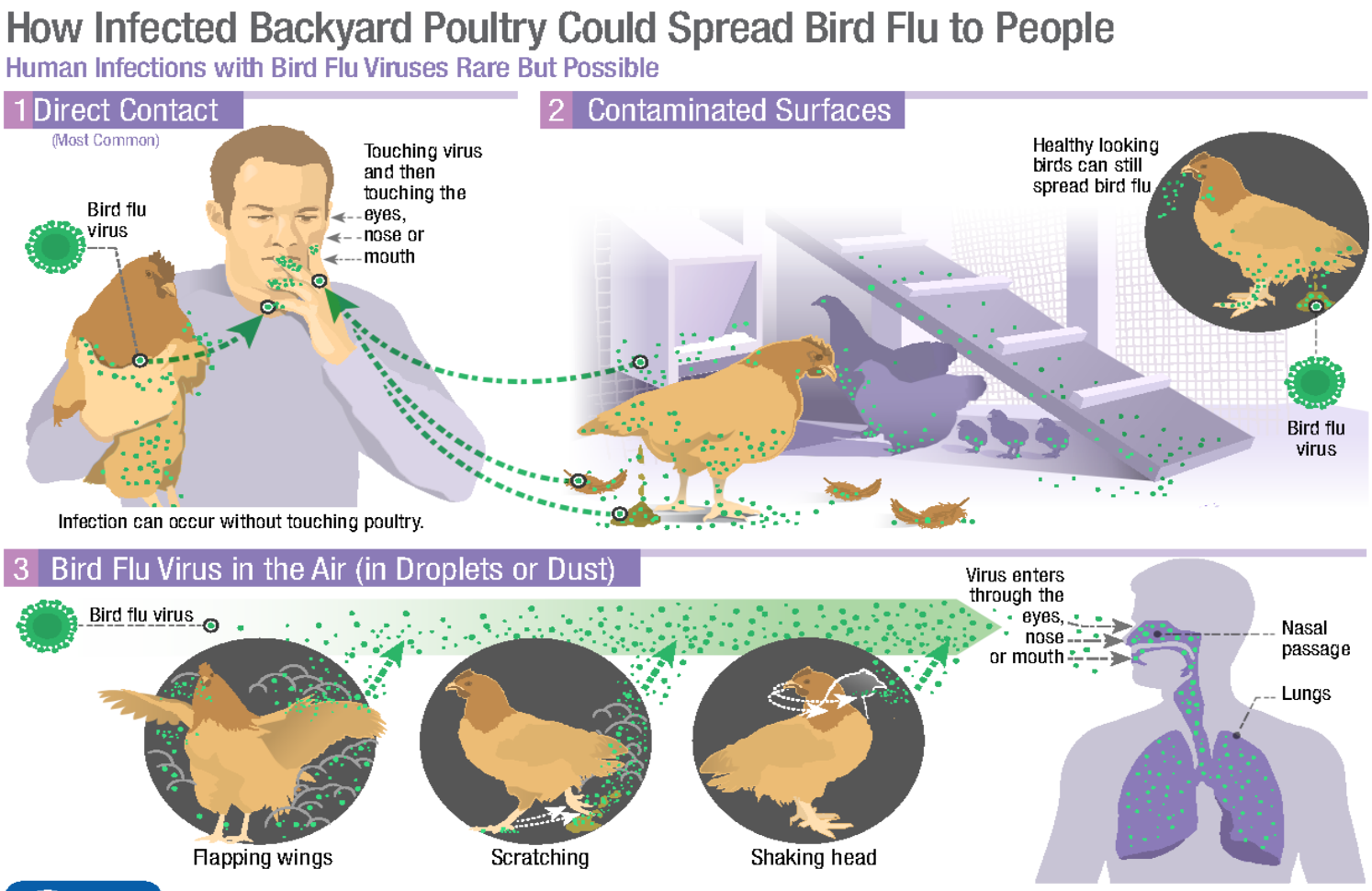
Who is Most at Risk?

Those most at risk for exposure to Avian Influenzas are those who own, hunt, or work with or live with someone who works with either wild or domesticated birds, such as ducks, turkeys, or chickens. These exposures include but are not limited to:

- Poultry workers
- Farmers
- Bird breeders
- Hunters

How to Prevent Avian Influenza in Humans

- Poultry Workers: To help prevent the spread of Avian Influenzas to humans, CDC recommends the use of Personal Protective Equipment (PPE): safety goggles, disposable gloves, boots, respirators, and disposable fluid resistant coveralls while working with live poultry or cleaning poultry houses between flocks. Reusable PPE should be cleaned and disinfected with EPA approved disinfectant[1,3]. All poultry workers are recommended to receive the annual seasonal influenza vaccinations.
- General Public: After direct contact (touching, petting or holding) or indirect contact (feces, litter, surfaces used by birds) with any type of wild or domesticated bird, CDC recommends avoiding touching ones eyes, mouth or nose, and washing your hands as soon as you can.[1] All people over the age of 6 months are recommended to receive the annual seasonal influenza vaccinations.
- Anyone who develops symptoms of influenza after contact with an infected flock should isolate at home and notify their primary care provider who may recommend testing and/or treatments. Follow up from the Cincinnati Health Department should be expected for individuals with any exposures or suspected Avian Influenza.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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Domestic Birds in Cincinnati City

Domestic birds including chickens, ducks, quail, doves, geese, turkeys, ostriches, emus and others can be kept in Cincinnati in accordance with City Ordinance §1422-05. There currently are no estimates available on the number of birds within city limits, but according to the United States department of Agriculture's 2017 Census of Agriculture, there are 34 poultry farms located in of Hamilton County and 10,274 poultry farms in all of Ohio containing an estimated 28,868,147 chickens, turkeys, ducks and geese.

Interactions with Wild or Domesticated Birds in Cincinnati City

While it may seen unlikely, those in Cincinnati City may interact with birds or poultry more than they realize. This interaction could be with geese, or ducks in a local pond, or fountain water feature. These interactions could also come from someone who owns a chicken coop in their yard, or even interacting with baby chicks from a local store or a petting zoo. It is important to always wash your hands after interacting with any bird or poultry, and never touch wild birds.

If you suspect an infected bird, or have a dead bird in your flock, please contact Animal Health in the Ohio Department of Agriculture at: **614-728-6220**

If you have any question or concerns regarding Avian Influenza and your health please contact the Cincinnati Health Department at: **513-357-7462**

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References

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