

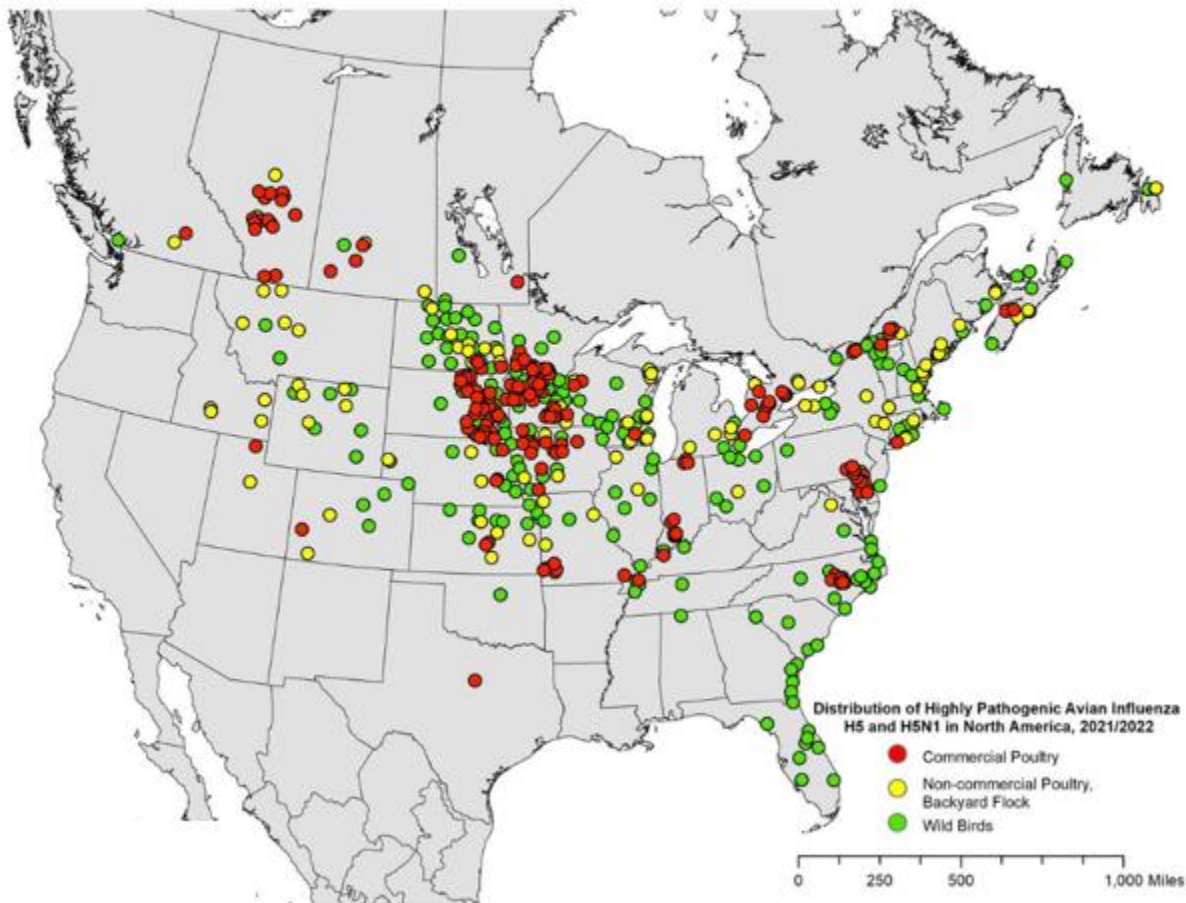
The Big News

US Detects First Human H5 Bird Flu Case (30 April 2022)

Why in News?

- US has reported the first known human case of H5 bird flu.
- The person tested positive for Avian Influenza A(H5) virus and was involved in the culling of poultry presumed to have had H5N1 bird flu.
- Globally, this is the second human case associated with this specific group of H5 viruses, which are currently predominant.
- The first was reported in Britain in December 2021.

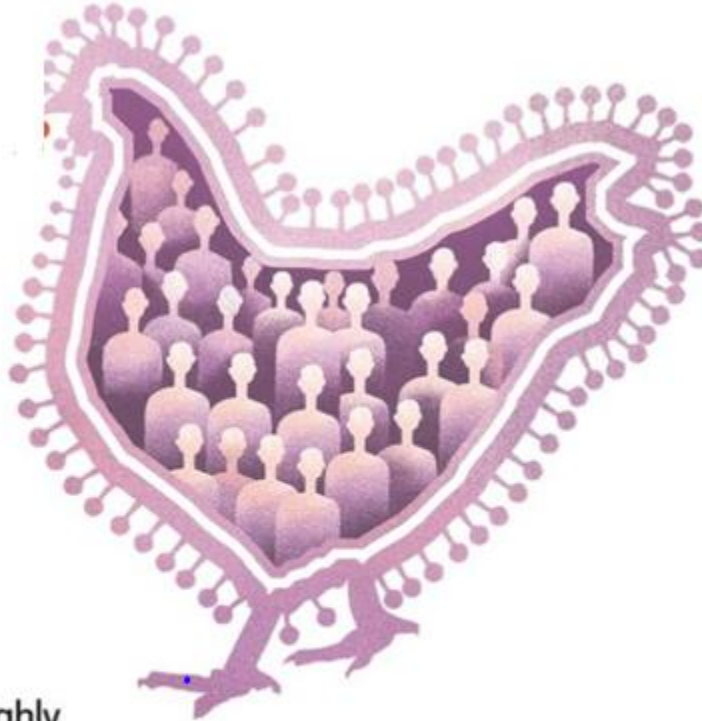
Distribution of Highly Pathogenic Avian Influenza H5 and H5N1 in North America, 2021/2022



What is Avian Influenza?

- Avian Influenza refers to disease in birds caused by infection with avian (bird) influenza (flu) Type A viruses.
- These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and

- other bird and animal species.
- Avian influenza A viruses are very contagious among birds, and some of these viruses can sicken and even kill certain domesticated bird species.
- Though influenza A is adapted to birds, it can also stably adapt and sustain person-to-person transmission.



BIRD FLU

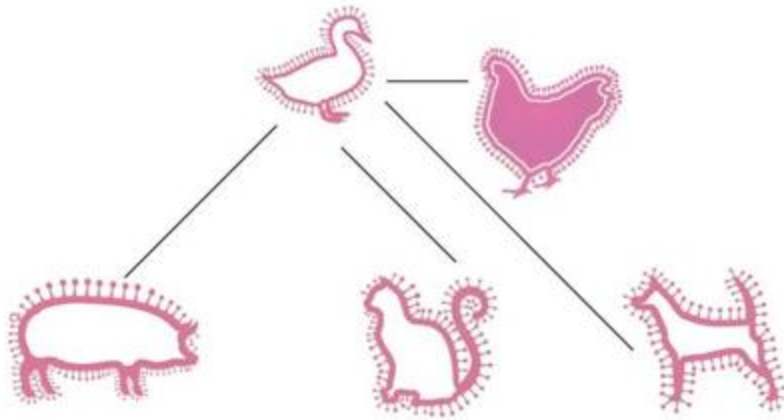
WHAT IS BIRD FLU?

Avian or bird flu is a highly contagious viral disease caused by Influenza Type A viruses that affects poultry. It was first detected in 1996 in geese in China. Infected birds are culled to contain the spread

Human Transmission

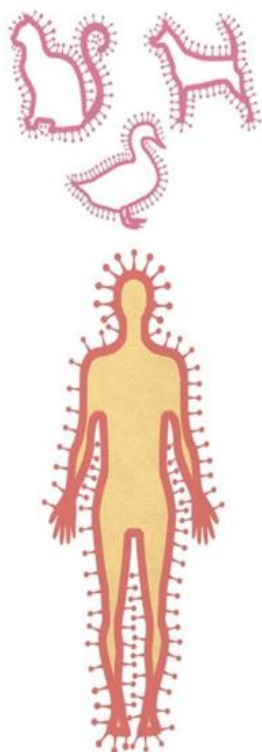
- Humans can be infected with avian, swine and other zoonotic influenza viruses, such as avian influenza virus subtypes A(H5N1).
- Human infections are primarily acquired through direct contact with infected animals or contaminated environments, these viruses have not acquired the ability of sustained transmission among humans.
- The majority of human cases of influenza A (H5N1) have been associated with direct or indirect contact with infected live or dead poultry. Controlling the disease in the animal source is critical to decrease risk to humans.
- To minimize public health risk, quality surveillance in both animal and human populations, thorough investigation of every human infection and risk-based pandemic planning are essential.

HOW DOES IT SPREAD?



- Migratory aquatic birds are carriers of Influenza A viruses and shed it in their droppings. This is how it spreads to other birds, and, occasionally, to mammals such as pigs, horses, cats and dogs
- Since 1997, bird flu has been detected in 50 countries around the world. Bangladesh, China, Egypt, India, Indonesia and Vietnam are considered to be endemic for Asian HPAI H5N1 virus in poultry **

WHEN DID IT BEGIN AFFECTING HUMANS?



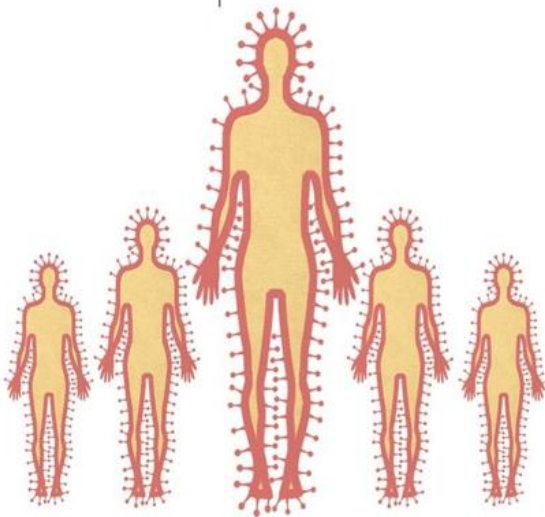
- In 1997, the first case of human infection was detected in Hong Kong. This was the deadly H5N1 strain of the virus. Subsequently, several other strains of the virus such as H5N2 and H9N2 spread from animals to humans
- People in close contact with infected livestock or dead birds are at risk from the virus. According to WHO, the virus is sensitive to heat and does not spread from people to people or from well-cooked food
- Between 2003 and 2014, the World Health Organisation recorded 701 cases of H5N1 and 407 deaths among humans

BIRD FLU IN INDIA



- In 2006, India recorded its first major outbreak in Maharashtra and Gujarat
- In 2008 and 2014, outbreaks were reported in West Bengal and Kerala respectively
- Between 2006 and 2015, India reported 25 episodes of H5N1 bird flu in poultry in 15 states. There have been no case of human infection so far
- In September 2019, India declared itself free from bird flu

DANGERS



- Around 6 out of 10 confirmed cases of H5N1 among humans have led to deaths (though the actual mortality rate may be lower due to under-reporting of asymptomatic cases)
- If the virus mutates and becomes easily transmissible, as is common for flu viruses, it can potentially cause a pandemic

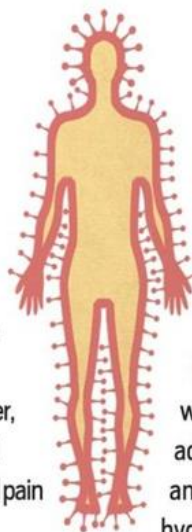
SYMPTOMS, TREATMENT AND PRECAUTION FOR H5N1



- H5N1 may cause severe respiratory illnesses such as pneumonia or Acute Respiratory Syndrome in humans. Early symptoms include fever, cough, sore throat, and sometimes, abdominal pain and diarrhoea



- Antiviral drugs, especially oseltamivir, are used for treatment
- People working with livestock are advised to use PPEs and follow hand hygiene



*** Source: Centers for Disease Control and Prevention, USA*

How serious is the threat?

- According to the CDC, the current case does not change the human risk assessment for the general public and it is considered to be low.
- The patient reported fatigue for a few days as the only symptom and has since recovered, the CDC said, adding that the person was being isolated and treated with the influenza antiviral drug oseltamivir.
- H5N1 viruses have been found in US commercial and backyard birds in 29 states and in wild birds in 34 States since the CDC started monitoring for illness among people exposed to the viruses in late 2021.
- CDC has tracked the health of more than 2,500 people with exposures to H5N1 virus-infected birds and this is the only case that has been found to date. Other people involved in the culling operation in Colorado have tested negative for H5 virus infection, but they are being retested out of an abundance of caution.



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