

# H5N5 Avian Influenza

**Prelims:** Current events of national and international importance | Health

# Why in news?

The H5N5 bird flu has recently made headlines after the first-ever human case was confirmed in the United States in November 2025.

## Avian Influenza/bird flu

- It is a disease caused by <u>Influenza A viruses</u> that typically infect birds, these viruses are <u>naturally found in wild aquatic birds</u>, which act as reservoirs.
- **Subtypes** Influenza A viruses are categorized by their surface proteins hemagglutinin (H) and neuraminidase (N), various subtypes include H5N1, H5N5, H5N8, etc.
- Some strains are classified as low pathogenic (LPAI), causing mild disease in birds, while others are highly pathogenic (HPAI) and can kill large numbers of birds rapidly.
  - H5N5 It is a *subtype of the avian influenza A virus*, primarily affecting wild and domestic birds like ducks, geese, and poultry.
  - Risks associated with the emergence of H5N5 -
    - Genetic Diversity Influenza A (H5) viruses come in many forms due to high genetic variation.
    - Reassortment Risk These viruses can shuffle genetic material (reassort), leading to new, unpredictable variants (as per the World Organization for Animal Health).
    - Low Current Risk The current threat may be limited, but the underlying pandemic potential calls for proactive monitoring of animal hosts.
  - Spread of H5N5 flu -
    - In Birds the virus spreads through respiratory secretions and feces, common in poultry farms, live bird markets, and wild bird populations.
    - In Humans Infection occurs via close, unprotected contact with

infected birds or contaminated environments.

- **Transmission** It can occur via droplets, dust, or by touching surfaces contaminated with bird secretions and then touching one's eyes, nose, or mouth.
- **Symptoms** It can range from asymptomatic or mild to very severe symptoms.
  - In humans include fever, cough, sore throat, shortness of breath, fatigue, muscle aches, eye symptoms (conjunctivitis) and sometimes gastrointestinal issues like vomiting or diarrhea.
  - Severe cases can lead to pneumonia, acute respiratory distress, or death.

### Prevention -

- Avoid close contact with sick or dead birds.
- Use appropriate protective gear (masks, gloves) when handling poultry or cleaning bird coops.
- Avoid raw or undercooked poultry, meat, eggs, and raw milk from infected animals.
- Public health agencies recommend ongoing surveillance and rapid detection of new human infections.

To know about H5N1 vs H5N2, Click here

#### References

- 1. The Hindu | U.S. resident infected with H5N5
- 2. NDTV | US Reports World's First Human Case Of H5N5 Bird Flu.

