

2. Bird Flu - Avian Influenza

Prelims Syllabus: Governance - Health

Mains Syllabus: GS-II Issues relating to development and management of Social Sector or Services relating to Health, Education, Human Resources.

Why in News?

- The suspected cases of avian influenza (bird flu) are being reported from various parts of the Kerala.

Mitigatory Measures:

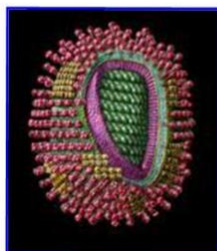
- Special squads had been formed to cull birds within a certain distance around the affected areas to bring the situation under control.
- About 4,000 chicken and birds are expected to be killed in two days as part of defensive measures being taken to prevent the spread of bird flu.
- The State was well-equipped with specialized laboratories to diagnose zoonotic diseases without delay and adopt preventive measures.

Bird Flu or Avian Influenza:

- Avian influenza (AI), commonly called bird flu, is an infectious viral disease of birds.
- These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species.
- People catch bird flu by close contact with birds or bird droppings or undercooked poultry.
- Outbreaks of AI in poultry may raise global public health concerns due to their effect on poultry populations, their potential to cause serious disease in people, and their pandemic potential.
- Reports of highly pathogenic AI epidemics in poultry, such as A (H5N1), can seriously impact local and global economies and International Trade.

H5N1:

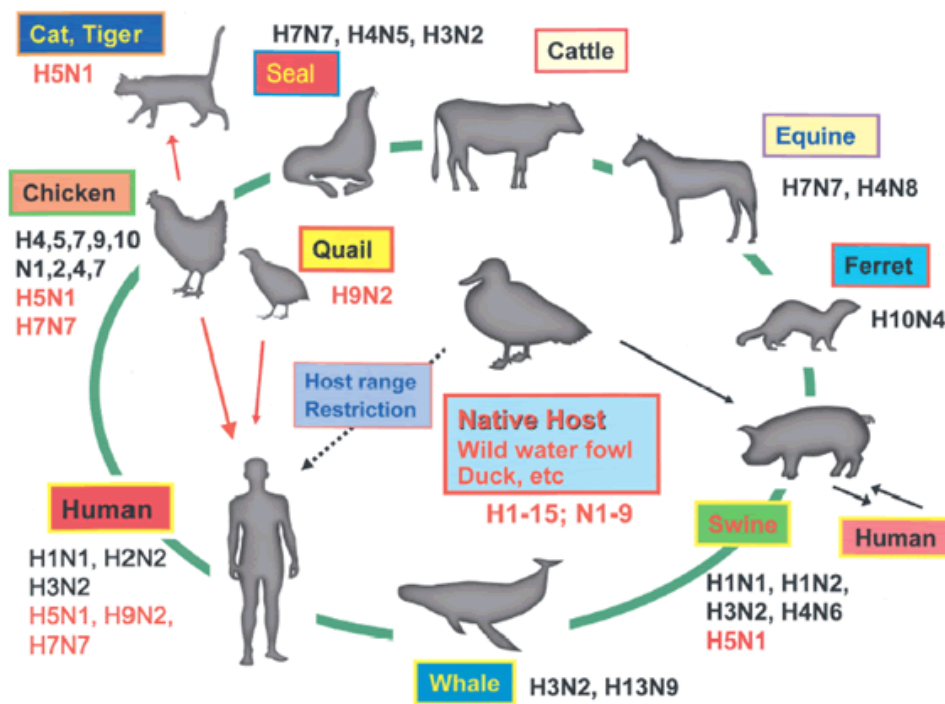
What Is H5N1?



- ◆ Influenza A from the family of Orthomyxoviridae
- ◆ Negative single-strand RNA virus with segment genome
- ◆ Haemagglutinin and Neuraminidase viral proteins
- ◆ 15 subtypes of haemagglutinin and 9 subtypes of neuraminidase
- ◆ All subtypes exist in wild aquatic birds

- Most avian influenza viruses do not infect humans. However, some, such as A (H₅N₁) and A (H₇N₉), have caused serious infections in people.
- H₅N₁ is a type of influenza virus that causes a highly infectious, severe respiratory disease in birds called avian influenza.
- Human cases of H₅N₁ avian influenza occur occasionally, but it is difficult to transmit the infection from person to person.
- When people do become infected, the mortality rate is about 60%.

How does H₅N₁ influenza spread to people?



- Almost all cases of H₅N₁ infection in people have been associated with close contact with infected live or dead birds, or H₅N₁-contaminated environments.
- The virus does not infect humans easily, and spread from person to person appears to be unusual.

High Concerns:

- H₅N₁ infection in humans can cause severe disease and has a high mortality rate.
- If the H₅N₁ virus were to change and become easily transmissible from person to person while retaining its capacity to cause severe disease, the consequences for public health could be very serious.