

5. India Declared Avian Influenza Free

Prelims: Governance- Health & Diseases, Science & Technology

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

Context:

- ▶▶ OIE-World Organisation for Animal Health declared the country free of the virus, the Centre's Animal Husbandry Department informed the states in a letter.

Background:

- ▶▶ In the last two years, outbreaks of the disease had been reported from several places, including Budhibara, Patharaganja, Malud, Brahmandeo, Kanheipur, Epinga and Nandala in Odisha, Goraho, Mubarakchak and Babura in Bihar and Fazil Khuthari in Jharkhand.
- ▶▶ The status will last only till another outbreak is reported.
- ▶▶ **India was last declared free of the disease in 2017.**

What is Avian Influenza?

- ▶▶ Avian influenza refers to the disease 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 flu viruses do not normally infect humans.
- ▶▶ However, sporadic human infections with avian flu viruses have occurred. The links below offer more information about avian influenza.

Brief Scenario on Outbreaks of Avian Influenza in India.

- ▶▶ The trend of infection of Avian Influenza has changed. Initially, in India, the disease was being reported mainly in backyard poultry in vicinity of migratory birds/ water bodies particularly in North-Eastern States and West Bengal.
- ▶▶ The main species affected used to be chicken.
- ▶▶ The ducks used to be reservoir of the virus, harbouring the infection without showing the clinical signs/ disease.

- ▶▶ However, the trend of occurrence of AI changed since 2011, gradually and most of the occurrences were reported from the poultry farms of central government such as DADF, ICAR and State Governments.

Possible reasons for occurrence of Avian Influenza:

- ▶▶ A number of factors contribute to make India vulnerable to primary incursion of Avian Influenza into the country.
- ▶▶ These include high density of poultry population;
 - ❖ Mixed Rearing of chicken and ducks;
 - ❖ Three flyways of migratory birds passing through the country;
 - ❖ Illegal Movement of poultry and poultry products from infected areas into the country;
 - ❖ Presence of large number of water-bodies visited by migratory / wild birds;
 - ❖ Inadequate bio-security in backyard rearing;
 - ❖ Inadequate sanitation of wholesale and retail poultry markets;
 - ❖ Endemic Situation of Avian Influenza in the neighbouring countries and
 - ❖ **Porous Nature of the Border.**

What is H5N1?

- ▶▶ H5N1 is a type of influenza virus that causes a highly infectious, severe respiratory disease in birds called avian influenza (or "bird flu").
- ▶▶ 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.
- ▶▶ There is no evidence that the disease can be spread to people through properly prepared and thoroughly cooked food.

Why is there so much concern about H5N1 influenza?

- ▶▶ 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.

Why might the H5N1 influenza Virus Change?

- ▶▶ Influenza viruses constantly undergo genetic changes.
- ▶▶ It would be a cause for concern, should the H5N1 virus become more easily transmissible among humans.

What are the Symptoms of H5N1 Avian Influenza in Humans?

- ▶▶ The symptoms of H5N1 infection may include fever (often high fever, > 38°C) and malaise, cough, sore throat, and muscle aches. Other early symptoms may include abdominal pain, chest pain and diarrhoea.
- ▶▶ The infection may progress quickly to severe respiratory illness (for example, difficulty breathing or shortness of breath, pneumonia, Acute Respiratory Distress Syndrome) and neurologic changes (altered mental status or seizures).

Is a vaccine available to prevent human infection with H5N1avian Influenza?

- ▶▶ Candidate vaccines to prevent H5N1 infection have been developed, but they are not ready for widespread use.

What is the WHO response to H5N1 Influenza?

- ▶▶ WHO is working with countries to help them detect and manage cases of H5N1 infection in humans when they occur.
- ▶▶ WHO collaborates with global health partners and agencies, including the World Organisation for Animal Health (OIE), and the Food and Agriculture Organization of the United Nations (FAO), to control and prevent the spread of animal diseases.
- ▶▶ WHO's global laboratory system, the Global Influenza Surveillance and Response System (GISRS), identifies and monitors strains of circulating influenza viruses, and provides advice to countries on their risk to human health and available treatment or Control Measures.

World Organisation for Animal Health (OIE):

- ▶▶ The OIE is the intergovernmental organisation responsible for improving animal health worldwide.
- ▶▶ It is recognised as a reference organisation by the World Trade Organization (WTO) and in 2018 has a total of 182 Member Countries.
- ▶▶ The OIE maintains permanent relations with nearly 75 other international and regional organisations and has Regional and sub-regional Offices on every continent.