



World Zoonosis Day

For Prelims: World Zoonosis Day, [Zoonotic Diseases](#), [One Health](#)

For Mains: One Health Concept and its Significance, Zoonotic Diseases and its impacts on public health

Why in News?

The **Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying** recently conducted an awareness program on [zoonotic diseases](#) as part of the [Aazadi Ka Amrit Mahostav](#) initiative on **World Zoonosis Day (July 6th, 2023)**.

- The program aimed to **educate farmers about zoonotic disease** risks and national efforts for prevention. Due to their **close contact with animals**, farmers are at higher risk of contracting zoonotic diseases.
- The importance of the ["One Health" concept](#) is highlighted in addressing zoonotic disease risks.

What is World Zoonosis Day?

- **History:**
 - World Zoonosis Day marks the anniversary of the **first vaccination against a zoonotic disease**.
 - On **July 6, 1885, Louis Pasteur**, a French scientist, successfully administered the **first vaccine for zoonotic disease**.
- **Significance:**
 - World Zoonosis Day educates people about the **risks and impacts of zoonotic diseases** on human and animal health.
 - **60% of known infectious diseases and 75% of emerging infectious diseases** are zoonotic, according to the [World Health Organization\(WHO\)](#).

What are Zoonotic Diseases?

- **About:**
 - Zoonotic diseases are illnesses that can be transmitted **between animals and humans**. These diseases can be caused by **bacteria, viruses, parasites, or fungi**.
- **Classification:**
 - **Based on Pathogens:**
 - **Bacterial Zoonoses:** These diseases are caused by **bacterial infections** that can be transmitted from **animals to humans**.
 - Examples include [anthrax](#), and [brucellosis](#).
 - **Viral Zoonoses:** Well-known viral zoonotic diseases include [rabies](#), [Ebola](#), and [Covid-19](#).
 - **Parasitic Zoonoses:** Diseases such as [toxoplasmosis](#) and [leishmaniasis](#) fall under this category.

- **Fungal Zoonoses:** Zoonotic fungal infections, like [ringworm](#) are caused by fungi that can be transmitted from animals to humans.
- **Based on Animal Species:**
 - **Wildlife Zoonoses:** These diseases primarily **involve interactions between humans and wildlife**, such as **hantavirus infections transmitted by rodents** or diseases spread by wild birds, like [avian influenza \(bird flu\)](#).
 - **Domestic Animal Zoonoses:** Diseases such as [brucellosis](#) from cattle or [toxoplasmosis](#) from cats, fall under this category.
- **Based on Mode of Transmission:**
 - **Direct Contact Zoonoses:** Infections that occur through **direct contact with infected animals**, their body fluids, or contaminated surfaces.
 - Examples include **rabies transmitted through animal bites** and Q fever from contact with infected livestock.
 - **Vector-Borne Zoonoses:** Diseases transmitted by vectors such as **mosquitoes and ticks**.
 - Examples include **Lyme disease** transmitted by ticks and [dengue](#) fever transmitted by mosquitoes.
 - **Waterborne Zoonoses:** [Leptospirosis](#) from contaminated water sources is an example of waterborne zoonotic disease.
- **Causes of Zoonotic Diseases:**
 - The emergence and spread of zoonotic diseases are influenced by several factors, including **environmental changes, wildlife interactions, livestock farming practices, and human behavior**.
 - Encroachment into natural habitats, wildlife trade, inadequate food safety measures, and improper sanitation contribute to the transmission of zoonotic diseases.
- **Prevention Strategies:**
 - Multisectoral collaboration is essential in preventing and controlling zoonotic diseases.
 - The **"One Health" approach** emphasizes the collaboration between human health, animal health, and environmental sectors.
 - Early **detection and surveillance systems** for zoonotic diseases play a crucial role in preventing outbreaks and epidemics.
 - Promoting **hygiene practices**, such as proper handwashing, food safety measures, and safe handling of animals, helps reduce the risk of transmission.
 - **Vaccination programs for animals**, especially those in close contact with humans, can be effective in preventing zoonotic diseases.
 - Improving **public awareness and education about zoonotic diseases** and their prevention is vital in promoting responsible behavior and reducing the risk of transmission.

What are India's Initiatives Related to Zoonotic Diseases?

- **[National Animal Disease Control Programme \(NADCP\):](#)**
 - Played a vital role in controlling two major zoonotic diseases: [Foot & Mouth Disease \(FMD\)](#) and Brucellosis.
- **Mobile Veterinary Units (MVUs):**
 - MVUs have been deployed to provide veterinary services at farmers' doorsteps, including disease diagnosis, treatment, minor surgeries, and raising awareness about the management of diseased animals.
- **[Animal Birth Control \(Dogs\) Rules, 2023:](#)**
 - The focus of the rules is on **anti-rabies vaccination of stray dogs** and neutering of stray dogs as means of population stabilization.
- **[National One Health Programme for Prevention & Control of Zoonoses:](#)**
 - Focuses on strengthening surveillance, diagnosis, prevention and control of zoonotic diseases through inter-sectoral coordination and collaboration.
- **Vaccination efforts:**
 - Focus on achieving 100% vaccination coverage for FMD in buffalo, sheep, goat, and pig populations, as well as vaccinating 100% of bovine female calves aged 4-8 months for brucellosis.

What is the One Health Concept?

ONE HEALTH

An approach to balance and optimize the health of people, animals and the environment

Based on the agreement between the tripartite-plus alliance i.e., the FAO, the World Organisation for Animal Health (OIE) and the WHO

THE APPROACH

- Prevent outbreaks of zoonotic disease in animals and people
- Improve food safety and security
- Reduce AMR infections and improve human and animal health
- Protect global health security
- Protect biodiversity and conservation

ONE HEALTH FACTS

- 60% of pathogens that cause human diseases originate from domestic animals or wildlife
- 20% of global animal production losses are linked to animal diseases
- Humans and their livestock are more likely to encounter wildlife when more than 25% of an original forest cover is lost

ONE HEALTH JOINT PLAN OF ACTION

- Launched by the Quadripartite-the FAO, UNEP, the WHO, and the OIE
- It is valid from 2022-2026 and is aimed at mitigating the health challenges at global, regional, and country levels

National One Health Mission

ELEMENTS

- Pandemic Preparedness (Human & Animal)
- Integrated Disease Surveillance
- Strengthening Routine Prevention Programs
- Joint Outbreak Response

ABOUT

- Aims to coordinate across achieving overall pandemic preparedness and integrated disease control against priority diseases of both human and animal sectors

LATEST STEP

- Animal Pandemic Preparedness Initiative (APPI)
- Animal Health System Support for One Health (AHSSOH)

EARLIER INITIATIVES

- The Integrated Disease Surveillance Project, 2004
- A multi-disciplinary Road Map to Combat Zoonoses in India, 2008

WHO, FAO, OIE, Drishti IAS

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Appropriate local community-level healthcare intervention is a prerequisite to achieve 'Health for All' in India. Explain. (2018)

Source: PIB

PDF Refernece URL: <https://www.drishtias.com/printpdf/world-zoonosis-day>