



## Zoonotic Disease Burden in Odisha and Current Strategy for Prevention and Control

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### Zoonotic Diseases: Overall Scenario

- Zoonotic diseases are a major public health concern
- WHO records more than 150 diseases and infections of animals communicable to man ( Bacteria, Virus, Protozoan & Helminth)
- India is an agricultural country and has 11% of animal population in the world
- Zoonotic diseases accounts for 60% of all human diseases and 7% of all human deaths.

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## Global Burden of Zoonotic disease (Cont...)

- ‘Poster Child’ Diseases like TB, Malaria , Avian Influenza& HIV attracts sophisticated public health framework and allocation of funds
- **NTDs fall below the global public health radar and** either continue untreated or pose possible outbreak risks
- 60% of around 400 identified infectious diseases are zoonotic in origin since 1940

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- What is one Health?  
One health is a comprehensive approach recognizing the interdependence of human, animal & environment health emphasizing on collaborative , multi-disciplinary strategy & efforts to address the global challenges and improve wellbeing of the community.
- Why One Health ?
  - i. Population Expansion
  - ii. Environmental disruptions
  - iii. Zoonotic Disease Surveillance
  - iv. Antibiotic Resistance
  - v. International travel& trade – movement of people, animals & products across borders

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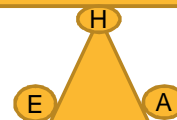
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## What are the priority Zoonotic diseases under kept under Surveillance? (2020)

1. Zoonotic Influenza
2. Anthrax
3. Japanese Encephalitis
4. Leptospirosis
5. Brucellosis
6. Rabies
7. Scrub Typhus
8. Plague
9. Crimean Congo Haemorrhagic Fever ( CCHF)
10. Kyasanur Forest Disease (KFD)

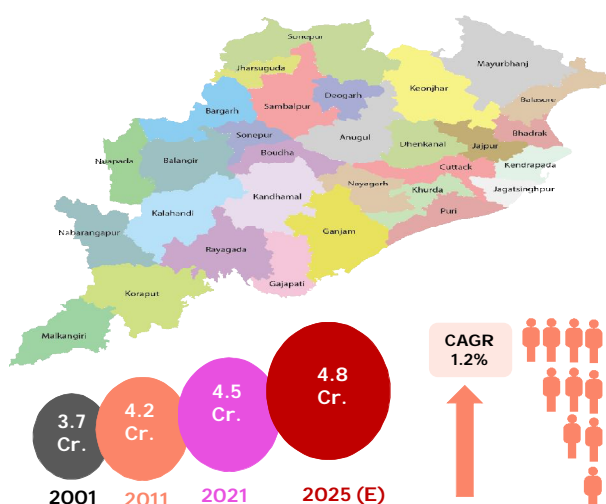
**Key Principles of One Health**

1. **Interconnectedness to under stand the disease dynamics**
2. **Collaboration across related Deptts.**
3. **Prevention of Outbreaks**
4. **Sustainability of best practices to protect the ecosystem and health of animal and human**



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## Odisha Profile



Source: Census 2011, Economic survey 2017-18, Odisha fact file

- Area 155,707 lakh km<sup>2</sup>**
- Population 4.5 Crores**
- 30 Administrative Districts**
- 314 Blocks and 52060 Revenue Villages**
- Literacy rate (%) 77.30**
- Rainfall- Avg 150 Cm; Temp reaches 45 to 50 degrees Celcius**
- 33% Forest Area**
- 22.84 % ST Population; 62 types of tribes**

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## Health Infrastructure - A Snap Shot



### Tertiary Care

- Medical College & Hospitals : 13
- PG Institutes : 2



### Secondary Care

- District Head Quarter Hospitals : 32
- Sub Divisional Hospitals : 33



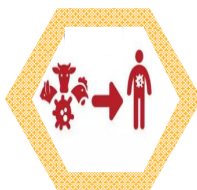
### Primary Care

- Community Health Centres : 382
- Primary Health Care Centres : 1412
- Sub Centre : 6688 (Upcoming - 3145)

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## What is the Burden ?



**60%**

Of the existing human infectious disease are Zoonotic



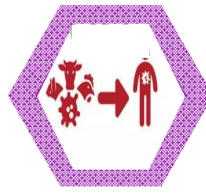
**80%**

Of the agents are zoonotic



**6**

New human diseases appear every year. Out of which **3** are of animal origin



**At least 75%**

Of emerging infectious diseases of humans ( EBOLA, COVID-19 , Influenza) have an animal origin

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## Epidemiological Status of Zoonotic Diseases in Odisha

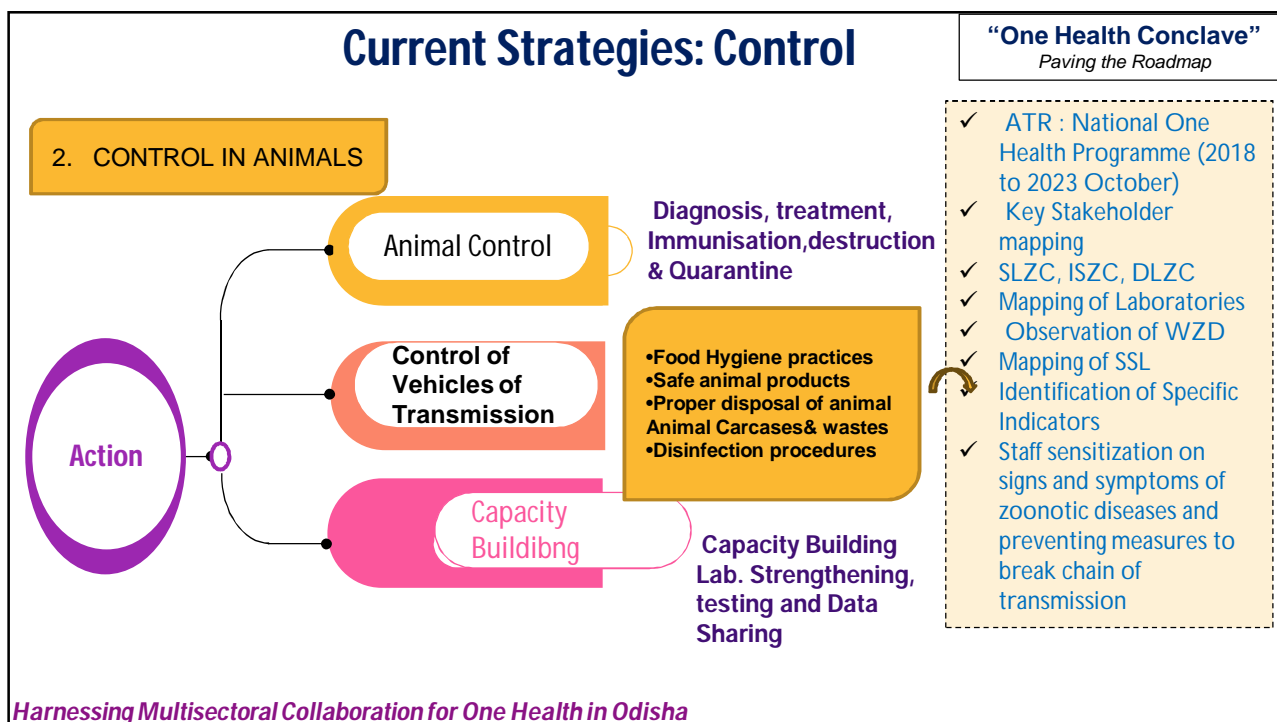
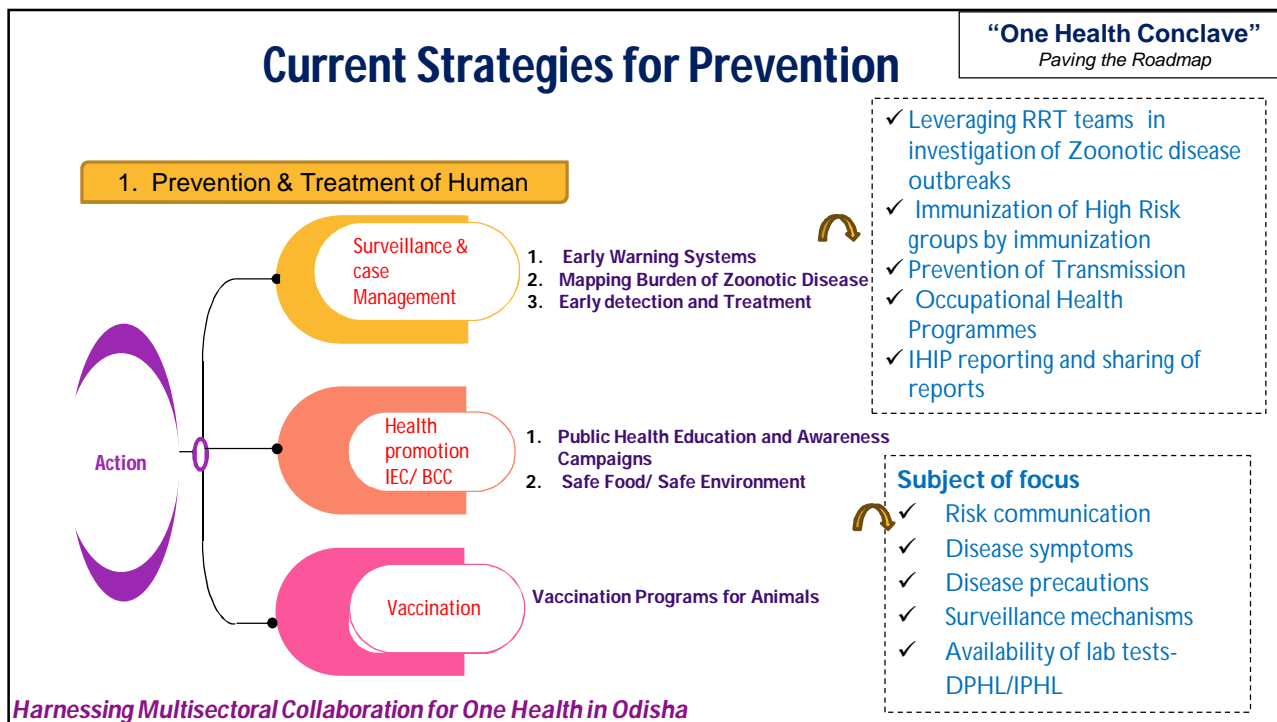
- Japanese encephalitis (JE): 740 Cases (2016 to May 2023 )
- Scrub Typhus: 19,124 cases (2021 to May 2023 )
- Anthrax: 695 Cases & 19 deaths (2011 to May 2023 )
- Leptospirosis: 3839 cases and 204 deaths
- AH1N1 pandemic occurred during 2009,2010
- Monkey Pox, Covid-19.....

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## National One Health Programme for Prevention and Control of Zoonoses (NOHP-CZ)

- **Vision:** Institutionalize a structural mechanism for one health at all level – National, State , District, Block & Village
- **Mission :** Bring all stakeholders, from policy makers to frontline workers, onto the one health platform with shared vision and common goals
- **Goal :** Protect communities and minimize socioeconomic losses due to emerging and reemerging zoonotic threats
- **Objective :** Operationalize “One Health Mechanism for Zoonotic Disease prevention and control by strengthening Inter-sectoral coordination at all level

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### **Role of Department of Veterinary and animal husbandry in One Health Approach**

- Coordination and information sharing on livestock, poultry disease and new occurrence of any zoonosis diseases
- Exchange of surveillance data
- Coordination between laboratories of Animal Health and Health Department with complimentary support
- Training of Veterinary and Para- Veterinary staff

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- Participation of Vets and Para Vets for a community-based evaluation and awareness
- Inter Departmental Coordination from community level to State level
- Strengthening and financial support to laboratories for AMR study
- Functional joint RRT for zoonosis and ONE HEALTH CELL Concept
- Biomedical waste management

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## Expected Outcomes

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Trained manpower

Strengthening of Laboratory

Strengthening of Integrated Surveillance and Digital platforms

Community Outreach and Risk communication on Zoonosis

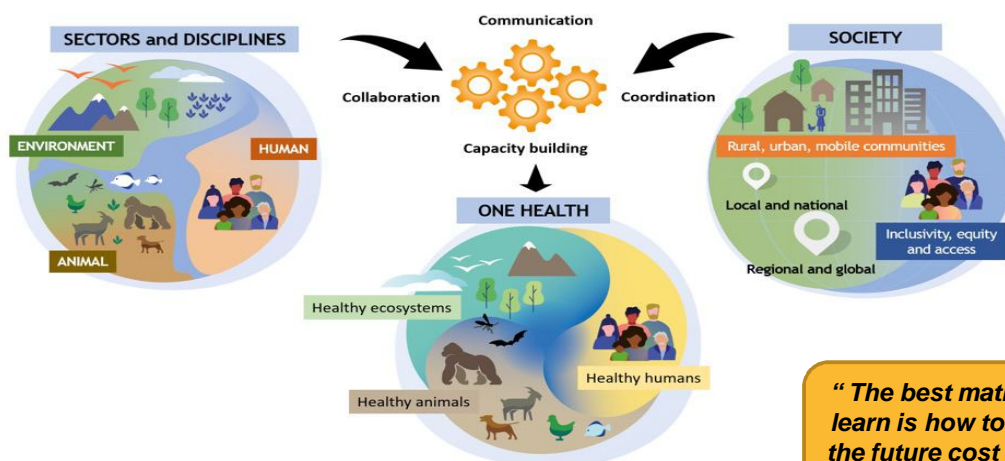
Strengthening the Inter-sectoral Coordination on Zoonosis

- ONE HEALTH OFFICE & CELL
- INTEGRATED IEC/BCC
- INTEGRATED DATA SHARING

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## How can we do?

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*“ The best math you can learn is how to calculate the future cost of current decisions”*

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## Thank You!

**"One Health is not just a concept; it's a collective commitment to harmony.**

**"Embracing the principles of one health is not a choice, it's a necessity for wellbeing of our planet and future generations'**

