Impact of zoonoses on human health and economy

Dr. R. S. Tayde

Assistant Professor

Dept. of VPH & Epidemiology

Co.V.Sc. & A.H., Mhow, Indore (M.P.)

Impact of zoonoses on human health and economy

- Socioeconomic losses from zoonoses are difficult to quantify completely (as with other human diseases) because the cost of lives and sufferings cannot be measured.
- Many of the zoonotic diseases cause **serious illness** and **high mortality** in man.
- The effects of febrile illness include:
 - loss of work capacity
 - loss of earnings
 - clinical complications
 - interference with patterns of family life and
 - **potential malnutrition** from increased metabolic demands in people who are already poorly nourished.

- In addition to clinical effects, the presence of zoonoses in a community has **economic repercussions** as a result of the **need to provide health services** e.g., hospital, diagnostic and other laboratory services.
- The **loss of human efficiency and man hours** together with medical costs of control in zoonotic diseases affect the national economy severely.
- Zoonoses also undermine animal health and productivity, reducing the production of food (meat, milk, egg and wool) as well as the work output of draught animals.
- This contributes to **human malnutrition** and to **lowering the resistance** of large number of people.
 - E.g., In presence of immunosupressive diseases such as AIDS, zoonotic pathogens such as Cryptosporidiosis and bovine tuberculosis. might assume more devastating nature and spread more rapidly

- Livestock diseases, especially zoonotic diseases have **direct consequences for national economic development**.
- They **reduce the available supply** of needed food, especially high protein food.
- **Feedstocks** of grain, grain by-products and animal by-products **are wasted** when the animals consuming them die.
- E.g., Foot and mouth disease (FMD) contributes to the problem of human malnutrition in a big way.
- The presence of animal diseases in an area may **prevent human** habitation.
- The economic costs incurred in the control of zoonotic diseases in animals are often huge and are additional to medical costs and losses in human work.
- The additional expense arises **from surveillance mechanisms** for detecting animal reservoirs, **diagnosis** of animal diseases, **quarantine** of animals, **restriction on animal transport**, **inspection** of meat and milk **and condemnation of animal products**.

- The impairment of animal production by diseases **force many countries to import** milk, meat, leather, wool and other animal products. This drains foreign exchange needed for development.
- On the other hand, countries which have animals and animal **products that could be exported** to earn foreign exchange **may find their markets closed or restricted** because of endemic infections including several zoonoses.
- E.g., The panic of 1994 plague outbreak in India. The outbreak had resulted in **ban for air travel** to the country, which had severe repercussions on tourism industry and in turn economy. The financial loss to the nation due to disruption of travel and trade was estimated as **900 crores rupees**.