Disease Pathogen Routes of Transmission





Disease causing agents can be spread from animal-to-animal or animal-to-human through a variety of transmission routes.



• **Aerosol** — Droplets containing pathogenic agents travel through the air and are inhaled by another animal or human.



 Oral — Ingestion of disease causing agents from contaminated food, water or by licking or chewing contaminated objects in the environment.



• **Direct contact** — Spread of disease agents through contact with open wounds, mucous membranes, or abraded skin contacting an infected animal or its tissues or fluids (e.g., blood, saliva, urine). Inoculation of pathogens can occur from bites or scratches.



 Reproductive — A subtype of direct contact that involves diseases spread through contact with reproductive fluids or tissues. In animals, pathogens may be spread during breeding or between mother and offspring.



• **Fomite** — Spread of pathogens through contact with inanimate objects, contaminated by an infected animal.



• **Vector-borne** — Transfer by an insect that acquires a disease agent from one animal and transmits it to another animal or a human.



• **Zoonoses** — Diseases transmitted from animals to humans.

Environmental contamination must always be taken into consideration.