

# ZOONOTIC DISEASE

## **E. coli Outbreaks Associated with Fairs, Petting Zoos, and Animal Exhibits**

While some diseases show host species specificity, meaning that they can only occur in one animal species, many other diseases can be spread between different animal species, including humans and animals. These diseases are collectively known as zoonotic diseases. The term zoonoses, is derived from Greek zoon (animals) and noses (diseases) that literally mean diseases from animals.

Zoonotic diseases can be transmitted by a variety of routes. Some documented ways include direct and indirect contact with infected animals, airborne exposure to infective agents shed by animals, consumption of animal products, consumption of water that has been contaminated by animal fecal material, or exposure to insect vectors such as fleas or ticks.



Previously, the primary mode of transmission of zoonotic diseases at agricultural fairs, petting zoos, and farm visits was thought to be fecal-oral, that is, by ingestion of bacteria-laden feces via contaminated food or water, or transfer by hand to mouth following contact with

contaminated surfaces or animals. Conclusions reached by investigators in several recent fair-associated outbreaks of *E. coli* O157:H7 suggest that ingestion or perhaps even inhalation of contaminated dust particles may also be how fair attendees become infected with the bacteria.

