



COMMUNITY



4-H & YOUTH



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Animal-Human Contact

Reducing Risk of Infection Among On-Farm Visitors

The interactions of animals and humans on farms have many benefits, but also some risks. Humans and animals can transfer pathogens to each other, called zoonotic disease transmission. Cases or outbreaks of infectious disease resulting from on-farm human-animal contact can have health, legal and economic consequences. Farm managers can take steps to reduce these risks.

How Intestinal Pathogens are Spread

Most infections passed on farms are from intestinal pathogens (bacteria, viruses, or parasites that cause gastrointestinal symptoms such as vomiting or diarrhea). These human pathogens can be found in healthy animals, and often require only a small dose to make people sick.

Intestinal pathogens are typically spread via the fecal-oral route, where small bits of feces from an animal are inadvertently ingested by a person. Pathogen transmission usually occurs via hands either from direct contact with manure or indirectly through fur, fencing, bedding, etc. Transmission can also occur if pathogens in feces contaminate human food or drinking water. Because children frequently touch objects and have more hand-to-mouth behaviors (e.g., thumb sucking, eating), they are at highest risk for infection. Non-farm children may not have developed the special immunities that farm kids with animals might enjoy.

Removing ill animals from animal exhibits such as petting zoos is necessary but not sufficient to prevent infection among visitors. Healthy animals can carry and shed human pathogens without showing signs of illness. Shedding can be intermittent, making laboratory testing an unreliable method of screening animals to exhibit.

Facility Design and Management

Providing hand washing facilities that are reachable to children at the animal area exit is critical. Hand sanitizer does not replace hand washing with soap, potable water, and single use paper towels, particularly if the hands are visually soiled with soil or animal excrement.

Separating food sales and eating areas from animals contact areas reduces human hand-to-mouth behavior in animal areas. Enteric pathogens can contaminate surfaces in animal housing and persist for long periods of time, making disease transmission possible without direct contact with animals or manure. Do not use areas recently housing animals as areas for eating or childcare.



“In 2001, 23 persons became ill with E coli at a fair facility after handling sawdust, attending a dance, or eating and drinking in a barn where animals had been exhibited the previous week.”

-Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2011

Two main strategies for reducing the transmission of infectious diseases between animals and humans

1. Reduce the presence of pathogens that can make people sick through careful management of animals and manure.

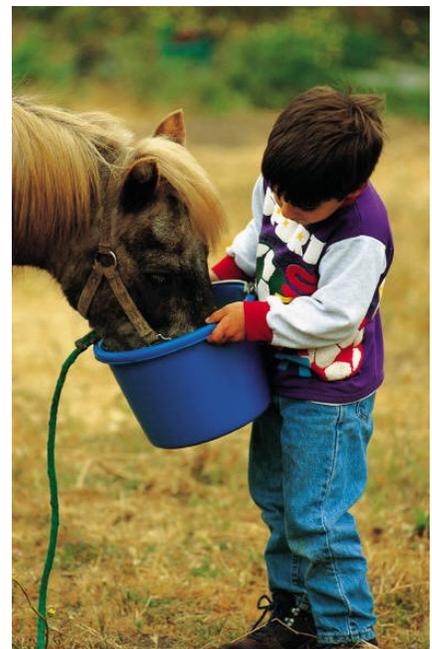
- Monitor animals daily for signs of illness; do not allow visitors access to sick animals.
- Place animals under the care of a veterinarian, to include preventive measures such as vaccination (e.g., rabies) and parasite control.
- Avoid overcrowding or otherwise stressing animals (e.g., through increased handling), which can increase fecal shedding of pathogens that can make people sick.
- Keep aggressive or unpredictable animals away from visitors.
- Prevent visitors from having direct contact with newborn animals or birthing by-products (e.g., placenta).
- Use fencing to separate animal and human areas.
- Store animal waste and tools used for animal waste removal in a restricted area, away from visitors.

2. Reduce visitors' chance of infection through education and facility design and management.

- Inform visitors of the risk of animal contact through signs, written materials and/or on-site discussion.
- Ask visitors to wash their hands with soap and potable water after visiting the animals. Offer single-use paper towels for drying hands.
- Request that visitors do not eat or drink in the animal areas.
- Do not provide food and/or food containers for animals that can be eaten by humans (e.g., using ice cream cones to hold animal feed).
- Be sure young children are closely supervised to discourage thumb sucking, nail biting and other hand-to-mouth activities.
- Discourage the use of pacifiers and baby bottles in animal areas.
- Inform visitors that those people are at high risk of severe infection should not visit or should be extra careful around farm animals. High risk persons include young children (<5 years), pregnant women, the elderly, and persons with compromised immune systems.

“Washing hands is the most important action for reducing the risk of transmitting diseases associated with animals in public settings.”

-Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2011



*These recommendations are based on the **Compendium of Measures to Prevent Disease Associated with Animals in Public Settings**. For additional resources and information on animals in public settings please visit www.cdc.gov/mmwr/pdf/rr/rr6004.pdf*

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