

Disease Transmission Activity – Aerosol¹

Tools needed for this activity: 5 plastic grocery bags and volunteers from the audience

Explain the main ways in which disease is spread: Aerosol, Introducing new animals, Spread among animals, People, Fomites (non-living objects), Pests, Manure and Intentional.

Explain that you will be demonstrating how diseases are spread by aerosol transmission. Factors that affect aerosol transmission include temperature, humidity, wind speed, sunlight and landscape.

1. Select 4-5 volunteers each to be “sick pigs” and “healthy pigs” and place them app. 10 feet apart. Give each sick pig a plastic grocery bag.
2. Explain to the “sick pigs” that they cannot use anything except blowing air to move the plastic bag. They must try to spread the bag to the healthy pigs before it falls to the ground.
3. If a bag reaches a healthy pig, they are to grab it and they become infected.
4. Repeat the process after everyone knows what they are supposed to do.

Variation:

1. Select an additional 2-3 volunteers to place between the healthy pigs and sick pigs. These people represent trees and other objects in the landscape that can block aerosol transmission of disease.
2. Repeat the above process of sick pigs blowing their plastic bags toward the healthy pigs to see how easily objects can block transmission.
3. Repeat the process one more time.

¹Activity from Dr. Sandy San Miguel, Purdue University College of Veterinary Medicine.

