

Disease Transmission Activity – Aerosol

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.



Hand Washing Activity

Explain that since we cannot see germs, we have an interesting activity to help us see “germs” on our hands and how hand washing can remove these “germs”.

1. Have participant(s) apply a very small amount of the Glitter Bug™ lotion to their hands and rub in well.
2. Shine the UV light over their hands, looking for purple effervescent spots. These are to represent germs.
3. Have the participant(s) wash their hands and dry them.
4. Shine the UV light over their clean hands, paying attention to the cuticles, around rings, knuckles and spaces between fingers. Do you still see purple? This indicates that the participant’s hands were not thoroughly washed.

Variation:

1. Have four participants apply a small amount of Glitter Bug™ lotion to their hands and rub in well.
2. Have one participant wash their hands for 5 seconds and dry them. Examine with UV light looking for purple effervescent spots. These purple spots represent germs.
3. Have second participant wash their hands for 10 seconds and dry. Examine with UV light.
4. Have third participant wash their hands for 15 seconds and dry. Examine with UV light.
5. Have last participant wash their hands for 20 seconds and dry. Examine with UV light.
6. Compare all hands under the UV light showing how increased time washing leads to cleaner-‘germ’ free hands.

