

2018 Youth Swine Day

Introduction

Interest approach – Mutation Nation

1. Divide youth participants into equal groups and have each group form a single file line.
2. Read a different “Mutation Nation” phrase to the first person in each line, making sure nobody else in the line hears the message.
3. Have participants repeat the message down the line.
4. Ask the first, middle, and last person in each line what they heard and read the original message to the group.
5. Ask the following questions
 - A. Why did the message change between individuals? (couldn't hear, too long to remember, larger words used)
 - B. Did you intentionally change the message? If so, why? (Answers will vary)
6. Have participants return to their seats
7. Say: *As you probably already know, messages change as they are repeated. “Viruses” are small infectious agents that can only reproduce inside the host cell they infect. Just like the message you repeated, these viruses can change from host to host to get past each species defense system, which is their immune system. As it was easier for you to change the message, viruses change to better fit the host they're infecting. When the changes are made, this is considered a “mutation.” If you think back to our activity, not only did the message spread as we instructed you to repeat the message to the person next to you, the message also changed, or mutated. At the same time, you served as a “vector,” transferring the message to each other, just as viruses are able to do. Animal vectors carry viruses and transfer them to other species.*
8. Ask participants the following questions to reinforce understanding.
 - A. *Relating the activity to influenza, what could each of you represent? (The animal vectors such as swine, poultry, waterfowl, humans or other species)*
 - B. *How can we relate this activity back to the spread of influenza between individuals and species? (The influenza virus often mutates to allow it to get past each species defense system [immune system]. It can spread between individuals of a species by coming into contact with feeding surfaces, sleeping areas, drinking areas and shared equipment or toys.)*

<https://www.youtube.com/watch?v=R8c87p0xI9Q>

9. Read aloud or paraphrase the following: *As a reminder, influenza is a common pathogen that can be found anywhere, such as around livestock or out in public, but because they change so easily they are difficult to control. Prevention is the best strategy to reduce the risk of spreading influenza. So how do we prevent influenza or other zoonotic diseases from being spread?* Allow audience to answer...

10. *One way we prevent disease from spreading to our animals is by practicing biosecurity. Who knows what biosecurity is? Right! Biosecurity is all the things we do to protect our animals from getting diseases. Who can name an example of a biosecurity practice you do at home? (Allow answers) Those are great examples of biosecurity! Several of you mentioned changing boots, etc, but I want to make sure you all know about the correct personal protective equipment, or PPE, that you should be using to keep diseases away from your pigs and to keep you safe from diseases your pigs may have.*

11. Bring up a volunteer and have them don PPE, explaining why each step is important and the proper way to don and doff to decrease exposure.

12. *Thank you for helping me show everyone this important step in biosecurity! Besides biosecurity, what are other things we should be doing to protect pigs and ourselves from disease? (Allow for answers and comment as needed) Great answers! What about washing your hands? How many of you wash your hands after you've been with your animals? Washing your hands is a really important step in preventing the spread of diseases. Who thinks they are really good at washing their hands? Great! We are going to see if your right! Come on up and bring mom/dad with you and we're going to have a contest to see who washes their hands the best.*

13. Give volunteers Glo-germ and have them wash their hands as they typically would. Compare results. Review proper steps in washing hands and have them try again to see if there is improvement.

14. Thank volunteers and pass out M2M handout. *Wearing PPE and properly washing our hands are great ways to prevent diseases from spreading between people and animals, but there are many other things we can do to be healthy.*

15. Go over the M2M handout

16. Ask for questions

17. If time allows, other volunteers can try to wash their hands or can work on word find on the back of the page

18. Closing – contact info