Proposal: 3818

Building a Collaborative Approach to Zoonoses Education for Youth in Animal Agriculture

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Abstract (150 words)

Zoonoses, such as variant swine influenza, avian influenza A viruses, and coronaviruses, comprise a large percentage of all newly identified and existing infectious diseases (www.who.int). There is an ever-growing need for a One Health approach towards the prevention and control of zoonoses in people and animals. The World Health Organization argues that collaboration is key to understanding and managing public health risks at the human-animal-environment interface and improving local and global health security.

This roundtable discussion about the role Extension/4-H has on this local/global issue will be led by 4-H faculty members of a statewide, multi-agency collaboration, formed in response to a 2017 outbreak of variant swine influenza at several county agricultural fairs in Maryland. Steps taken to collectively develop and implement long term strategies to prevent future variant influenza outbreaks in Maryland, approaches used, and resources developed to provide zoonoses education for 4-H/FFA youth in agriculture will be shared.

Poster Session

Yes

Check if proposals is from an NAE4-HYDP Committee

If from a PLWG Committee or Task Force, please identify

Identification of 4-H 2025 Vision area

Power of Youth, Effective Organizational Systems

Identification of roundtable type

Program Innovations
Roundtable topic summary

Zoonoses, such as variant swine influenza, avian influenza A viruses, and coronaviruses, comprise a large percentage of all newly identified and existing infectious diseases (www.who.int). According to the Centers for Disease Control, scientists estimate that more than six out of every ten known infectious diseases in people, and three out of every four new or emerging infectious diseases in people, are spread from animals. Tens of thousands of Americans get sick each year from harmful germs spread between animals and people.

In fall of 2017, an outbreak of variant swine influenza occurred at several Maryland county agricultural fairs. Forty people, all of whom had exposure to swine at one of three Maryland county agricultural fairs, were diagnosed with influenza A(H3N2) variant virus infection (A(H3N2)v). People who contracted the infection included swine exhibitors and their families, and fairgoers. Multiple swine exhibited were also diagnosed with the influenza A(H3N2) virus.

The Maryland Department of Health (MDH), local health departments, Maryland Department of Agriculture (MDA), University of Maryland Extension/4-H, fair officials, and influenza subject matter experts at CDC, utilized a One Health approach to collaboratively respond to this outbreak. Steps were taken to develop and implement longer term strategies to prevent future variant influenza outbreaks in Maryland. Efforts included meetings/seminars to provide education about swine/variant influenza prevention, updating processes/protocols for swine exhibits, and improving communication plans for disease notification and response.

During 2018-2020, supported by funding from the MDH and a multi-year CDC/USDA/CSTE Project Development grant, the collaborative partnership created and implemented zoonoses education approaches and resources that were captured under the program title, Healthy Animals | Healthy YOUth. Novel influenza and other zoonotic disease subject matter content was delivered through online training programs, train-the-trainer sessions and youth workshops using hands-on lessons/kits, videos, and standardized fair animal exhibit signage.
Roundtable session plan

Our roundtable teaching plan and methods include taking an initial pulse among the participants of the level of knowledge and perceived significance of zoonotic diseases in society and implications for youth agricultural education programs like 4-H and FFA.

Roundtable presenters will provide an overview of zoonoses, along with an overview of recent zoonotic disease occurrences at Maryland County Agricultural Fairs which raised organizational, media, and public awareness. Presenters will focus on this issue in the context of agricultural fairs and shows, along with the collaborative response to zoonotic disease outbreaks in the state. Presenters will also highlight zoonoses education approaches and resources that were jointly created and implemented under the program title, Healthy Animals | Healthy YOUth.

The roundtable discussion will engage participants in an exploration of why zoonoses is of growing importance in today’s society and, more specifically, for young people engaged in animal agriculture. Reasons why collaboration is key to understanding and managing public health risks at the human-animal-environment interface will be explored, along with its influence on improving local and global health security.

For summary and conclusion, participants will discuss future strategies that might be taken to address zoonoses in their local or state programs, learn how they can access the Healthy Animals | Healthy YOUth resources highlighted, and brainstorm opportunities for cross-state collaboration on this issue.
Proposed discussion questions

There is an ever-growing need for a One Health approach towards the prevention and control of zoonoses in people and animals. What is your familiarity or experiences with zoonotic diseases in the context of your educator role or youth program? What are you doing in your local or state program related to this topic? Why do you feel this is an important topic?

Youth exhibiting livestock are themselves at risk for developing variant influenza or other zoonotic diseases, and also have the potential to play an important role in preventing the spread of these diseases. What do you see are the potential benefits for youth exhibitors who engage in this issue?

The Maryland example included of collaboration among the Maryland Department of Health (MDH), local health departments, Maryland Department of Agriculture (MDA), Univ. of Maryland Extension/4-H, fair officials, and influenza experts at CDC. Who are additional potential partners to address this important issue? Does your state have agencies, which may be potential collaborators for you?

The Maryland example shows how zoonoses related occurrences at agriculture fairs and shows could impact public awareness, and maybe concern about diseases that can be transmitted between animals and people. What are the potential implications zoonotic disease outbreaks can have on 4-H animal programs? Youth engaged in animal agriculture? What have you seen in the media related to zoonotic diseases and how did you or others perceive it? How do we best respond to negative press or social media?

The Maryland example shared zoonoses education approaches and resources created and implemented in its state. What strategies might be taken to address zoonoses in your programs?

How can you incorporate the information shared during this roundtable session into your current program?

How can we (Extension and 4-H across the US) collaborate together on this topic?

Speakers/Presenters

Presenters

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Reviewer
Yes