



## Project Background

Animal agriculture is an important part of our country's economy and culture. Youth agriculture programs are a key element in the future of animal husbandry and food production. Raising and showing livestock help youth develop responsibility, learn good sportsmanship, and gain confidence. Most Iowa youth interested in pursuing a career in agriculture are members of either 4-H or FFA. In Iowa, nearly 100,000 Iowa youth are involved with 4-H and more than 15,000 students participate in FFA.

While raising and showing animals have an overall positive impact on youth and the community, many zoonotic diseases can affect exhibitors and spectators, especially when people have close contact with animals. Several animal related disease outbreaks, such as variant influenza A virus of swine (H3N2v), or enteric disease outbreaks caused by pathogens such as *E. coli* and *Campylobacter*, have been associated with fairs within the past few years. In many instances, these events resulted in severe illness in youth. Younger children are at an increased risk for complications of zoonotic disease infections.

Youth livestock projects can also present disease transmission risks to animals due to the comingling of various animals and animal species from different locations. While most commercial farms implement biosecurity measures to reduce the risk of disease among animals, youth animal agriculture projects are generally reared on a smaller scale, involve closer contact with the animals, and have an increased opportunity for comingling of animals or sharing of equipment. Subsequently, many national and state agencies, organizations, and institutions have identified biosecurity for animal agriculture settings as a subject of high priority.

Understanding disease risks and preventive measures is critical to reduce the occurrence of zoonotic diseases among youth associated with animal agriculture. Awareness of these risks can help youth to understand the importance of disease prevention for themselves, their animals, and the public. Additionally, teachers, volunteer leaders, and parents should understand the same disease risks to further reinforce measures needed to prevent zoonotic disease transmission.

While programs addressing issues of food safety (e.g., Quality Assurance Programs) are currently available and often required for youth in agriculture, programs directly targeted at youth that address the link between biosecurity, animal health, and zoonotic disease risks are very limited.

To address this concerns, the Center for Food Security and Public Health at Iowa State University's College of Veterinary Medicine, in collaboration with the Iowa Department of Public Health and with support from the Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists created two **free online courses to teach youth about zoonotic diseases, "Bring Home the Blue, Not the Flu: Preventing Disease in Animals and People"**.

These courses are meant to encourage showmanship and animal involvement while keeping both animals and humans safe and healthy. Two courses, one for elementary students (ages 7–12) and one for middle and high school students (ages 13–18), are each divided into six lessons. Students will learn about diseases, how diseases are spread, and how to prevent transmission between humans and animals in a fun and interactive way. Older learners will learn about specific zoonotic diseases, such as influenza, and complete case studies, and will also learn about career opportunities in One Health—the health of animals, people, and the environment.

Visit [www.BlueNotFlu.org](http://www.BlueNotFlu.org) to access the courses, supplemental information such as learning objectives and worksheets, teacher materials including answer keys, hands-on activity guides, materials for hosting a workshop, and more! For questions, contact [YouthInAg@iastate.edu](mailto:YouthInAg@iastate.edu).