



Activity 2. Zoonotic Disease Course

Project Background & Instructions

Iowa State University's College of Veterinary Medicine, in collaboration with the Iowa Department of Public Health and with support from the federal Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE) created an online course to teach youth about zoonotic diseases, "Excellence in Exhibition: Preventing Disease in Animals and People". The course is meant to encourage showmanship and animal involvement while keeping both animals and humans safe and healthy. The course is available to anyone free of charge through the Iowa Center for Food Security & Public Health (CFSPH) website at <http://www.cfsph.iastate.edu/YouthInAg/>.

Animal agriculture is an important part of our country's economy and culture. As with most agriculture based states, 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. While raising and showing animals have an overall positive impact on youth and the community, there are many animal diseases that can be spread between people and animals (zoonotic diseases), 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*, were associated with agricultural fairs in recent years. Youth livestock projects can also present disease transmission risks to animals due to the co-mingling 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 co-mingling of animals or sharing of equipment. 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, when teachers, volunteer leaders, and parents understand the disease risks they can help to further reinforce measures needed to prevent zoonotic disease transmission.

Instructions

Where to access: <http://www.cfsph.iastate.edu/YouthInAg/>

Target audience: This course can be taken independently by anyone at any time, but is targeted at youth aged 13–18 years

Course Information: The course is divided into six lessons. The first three lessons focus on specific zoonotic diseases, such as influenza, and ways to prevent transmission to humans and animals. Two additional lessons are case studies, and the sixth lesson highlights agencies and career opportunities in One Health—the health of animals, people, and the environment.

Estimated completion time: Each lesson is 20–30 minutes.

How to use the passport: Incentivize students to take the online course by filling out the passport page for each lesson they complete. They can draw a picture in the blank space when they complete it, you can stamp it, put stickers or be creative! Print off both passport pages. Fold them both top to bottom and then side to side, making sure all writing is visible. Once both passport pages are folded, stick the passport without the One Health/Maine CDC imagery inside of the one with the imagery. Then staple the edges so they stick together.

Certificate of completion Additionally, each student can print out a certificate of completion with the student's name, chapter or club, and county at the end of each lesson. You can have them bring these in as well.

There are additional resources available to students and instructors on the CFSPH website, including learning objectives for each lesson, disease factsheets, lesson worksheets, PowerPoints that contain the same information as the online course, and biosecurity and disease prevention posters.

Should you choose to incorporate the course into your classroom or club, there is also additional material to aid in your instruction that have been developed by Maine CDC employees working on the Influenza among Youth in Agriculture program. Included in the password-protected "club leader or instructor" area of the website, you can find learning objectives with answers for each lesson, answers to supplemental worksheets, and a biosecurity and disease spread hands-on activity guide. You can also use the learning objectives to help form questions for any exam you may wish to implement. We hope this course is used widely by youth, parents, advisors, leaders, and fair organizers.

To maximize participation, we suggest incorporating the online course into classroom curriculum, using the course to prepare for FFA contests, incorporating the course into 4-H projects in animal or human health, developing competitions between clubs or chapters for participation, awarding chapters or clubs for the most participation (completion certificates), and/or requiring completion of the course as a prerequisite for showing at local or state animal exhibitions or fairs.