ANDY SCHNEIDER: Hello, everyone, and thank you for joining the webinar. We are excited to introduce expanded biosecurity resources to help defend your flock from the spread of disease. I'm Andy Schneider, known to most as the Chicken Whisperer. Today I'm joined by Doctor Jo Anna Quinn, Dr. Denise Heard, and Doctor Megin Nichols.

Before we get started, we want to let you know that closed captions are available for this program. For anyone who wishes to view realtime streaming captions, type the URL that you see on this slide into your browser. You can use this link at any time during the program.

Now, we will take a few minutes to introduce ourselves. I'm Andy Schneider, editor in chief of Chicken Whisperer Magazine, national spokesperson for the USDA APHIS, Avian Health Program, author of the Host of the Backyard Poultry with the Chicken Whisperer Wed radio show and Podcast. Doctor Quinn, please tell us a little bit about yourself.

DR. JO ANNA QUINN: Thank you, Andy. I'm a veterinarian medical officer working with USDA. I work in District One, which is located in the eastern United States. My educational background is in poultry and avian medicine. In my
position, I serve as a resource on poultry health issues working with state agriculture departments, the commercial poultry industry, and with small flock owners. My focus is on avian influenza and disease prevention through biosecurity. I'm happy to be with you today.

ANDY SCHNEIDER: Thank you, Doctor Quinn. Doctor Heard, please tell us a little bit about yourself.

Dr. DENISE HEARD: Thank you, Andy. I'm the senior coordinator for National Poultry Improvement Plan, or NPIP, which is a cooperative federal, state, and industry program of the United States Department of Agriculture that works to control certain poultry diseases. We will talk in greater detail about the NPIP during today's webinar. I'm a veterinary medical officer with the USDA, trained at the University of Georgia, and I work with growers and breeders all over the country to provide support and coordinate oversight for the NPIP certified facilities, and to educate all growers on how we can use the NPIP biosecurity principles to keep all of our flocks healthy and safe.

ANDY SCHNEIDER: Thank you, Doctor Heard. Doctor Nichols? Will you tell us a little bit about yourself?

DR. MEGIN NICHOLS: Hello. My name is Megin Nichols, and I'm a public health veterinarian in the division of foodborne, waterborne, and environmental diseases at the Center for Disease Control and prevention. I currently work on multi-state
outbreaks of Salmonella and E coli resulting in exposure to animals and pet products. Every year, CDC investigates outbreaks of Salmonella illnesses in people linked to backyard poultry. I’m happy to be here today to represent the CDC and to participate in the webinar. Back over to you, Andy.

ANDY SCHNEIDER:  Thank you, Doctor Nichols. My goal today is to provide information about keeping birds healthy for all flock owners. From individuals who raise chickens and other breeds in their backyards to bird lovers who participate in shows and fairs to commercial enterprises that raise the poultry and eggs that we consume. We will cover practicing biosecurity and the spread of disease; an overview of the NPIP resources, as well as new resources from the USDA. And finally, we will conclude with important information about protecting both human and avian health. If you have questions, please feel free to submit them by clicking the Q&A button located at the bottom of your screen after the webinar.

After webinar, APHIS and CDC veterinarians will answer all questions, and they will be posted along with a recording of this webinar on the APHIS website. Be sure to follow the come pain on FaceBook and Twitter to find out when the recording is available. We will share those on-line destinations at the end of the webinar.

First, let's turn our attention to an update on biosecurity.
Disease outbreaks among poultry are devastating. Protecting the health and safe of our nation's poultry must be a top priority for all flock owners. The US poultry industry is one of the largest in the world and an important sector of our agricultural economy. If US poultry are exposed to highly contagious diseases like highly pathogenic avian influenza, HPAI, and virulent Newcastle Disease, vND, the impact on our economy can be severe and international trade could be impacted.

It's important to know the ways disease can spread, so you can take the proper steps to prevent it: Adding infected or diseased birds to a flock; adding birds that carry diseases or germs to a flock, even when they appear healthy; exposure to wild animals, pet birds, and wild birds; contact with contaminated hair, shoes, and clothing; contact with contaminated objects, items that carry germs; improper disposal of dead birds and impure water, such as surface or drainage water.

Some additional ways that disease can spread includes exposure to rodents and insects; the use of contaminated materials, such as feed, feed bags, egg flats, crates, coops, trays, and water troughs; using contaminated vehicles, such as trucks, motorcycles, wheelbarrows; through contaminated soil, feathers, old litter, and debris; and through contaminated equipment such as scales, knives, or counter tops.

That's why practicing biosecurity is crucial. Doctor Quinn,
can you talk more about the importance of biosecurity practice?

DR. JO ANNA QUINN: Absolutely. Biosecurity essentially means protecting or safeguarding life. It involves using common sense practices to protect your poultry and birds from all types of disease agents, viruses, bacteria,funguses or parasites, doing everything possible to protect your birds from infectious diseases like Virulent Newcastle disease and avian influenza, prevent disease-causing germs from entering your premises, preventing disease-causing germs from leaving your premises and spreading to your neighbors. We saw how quickly disease spread and the impact it had on backyard and commercial poultry with the avian influenza outbreak in 2014 and 2015 and with the current Virulent Newcastle disease outbreak in California.

Implementing stronger biosecurity practices encompasses three main areas of focus: First, creating structural barriers and maintaining them, for example, keeping your chickens and coop within a fenced run. Second, instituting operating procedures and policies that reinforce good biosecurity. And third, ensuring that biosecurity is an every day, every time effort.

These are the fundamentals of biosecurity practice. What we have referred to in the past as the six simple steps: One, keeping your distance. Two, keeping it clean. Three, not hauling disease home. Four, not borrowing disease from your neighbor. Five, knowing the signs of disease. And six, reporting
sick birds.

Now, we are expanding these simple steps to include more detailed guidance and training to ensure that all flocks, whether industry, backyard, or exhibition, are practicing with a common set of standards. The National Poultry Improvement Plan, known as the NPIP, has done this successfully for decades and offers important lessons that we all can use.

Now I will turn the presentation over to Doctor Heard who will tell you more about the NPIP.

DR. DENISE HEARD: Thank you, Doctor Quinn. The National Poultry Improvement Plan, known as NPIP, is a voluntary, cooperative federal-state-industry program established over 83 years ago aimed at improving poultry health throughout the country. The NPIP was originally established to eradicate a disease called Salmonella pullorum, which was causing 80 percent mortality in baby chicks. Today we have essentially eradicated Salmonella pullorum in the industry. With such success in eradicating the disease, the NPIP was extended to include testing, monitoring and surveillance for additional poultry diseases that cause illness in poultry such as Avian Mycoplasmas, Avian Influenza, and other types of Salmonellas.

The NPIP has three main objectives: First, the cooperation of the industry, state, and federal government is essential to improve poultry and poultry products throughout the country by
promoting new diagnostic technology. Second, NPIP certification programs examine the health status of the industry, such as broiler, turkeys, and egg laying birds, by monitoring their primary multiplying breeding stock. And finely, the NPIP establishes the standard operating procedures for sample collection, diagnostic testing performed, and the laboratory protocols for conducting tests under the National Poultry Improvement Plan.

The NPIP is extremely proud to be supported by so many poultry organizations and associations. You can see some of them listed here in this slide. The NPIP works with and represents all sectors of the poultry industry. No one is left out.

Participation in the NPIP is voluntary; however, we currently have all 50 United States voluntarily participating in the NPIP as well as one US territory, Puerto Rico.

Within the states, we have different types of participants such as the primary poultry breeders, commercial companies, independent flock owners, and backyard bird owners, hatcheries, slaughter plants, game bird operations, poultry dealers, and 100 NPIP approved laboratories that perform the testing for the NPIP program.

The NPIP offers numerous benefits. Some of the most significant advantages to becoming a NPIP participant include being proactive in the protecting the health of your flock through voluntary monitoring testing; preventing vertical transmissions of
diseases from hen to chick, knowing that you have purchased your bird from NPIP certified flocks that have met very specific prevention condition; enjoying the ability to move your flock across state lines without additional Salmonella and AI testing; minimizing the risk of bringing Salmonella contaminated eggs to your home; having access to your best management practices; and a big benefit is that you can receive up to 100 percent indemnification if your birds are destroyed due to avian influenza.

A new addition that I would like to highlight is the NPIP Biosecurity Principles Program. This program contains the best management practices and principles that are designed to prevent the introduction and spread of any type of infectious disease. Large and small poultry operations can take these biosecurity principles and apply them by developing a site specific plan for their operation. The 14th biosecurity principle includes an auditing tool for the large operation to ensure that their plans are designed appropriately to prevent the introduction and transmission of disease.

And remember, what one owner does with their flocks can affect all flocks, even those at a distance.

Doctor Quinn, can you take us through what this means for the future of biosecurity practices?

DR. JO ANNA QUINN: Thank, Doctor Heard. USDA has begun the full rollout of communicating the NPIP principles to all
growers, beginning with guidance on three of the 14 principles: First, actions related to personnel, meaning anyone who comes in contact with your flocks; second, biosecurity practices related to preventing disease resulting from contact with wild birds, rodents, and insects; and the third point USDA is providing guidance on for all growers relates to preventing the spread of disease through the use of vehicles. USDA will continue to provide guidance on additional principles through the year 2020.

For commercial facilities, the NPIP principles require that your biosecurity program must include provisions and procedures for personal protective equipment, both for site dedicated and non-farm personnel. Your practice should include documented procedures for all personnel who have had contact with your poultry.

Andy, can you describe how this applies for backyard and exhibition growers?

ANDY SCHNEIDER: Thanks, Doctor Quinn. It's important that you only allow people who are trained to care for your poultry to come in contact with your birds. This helps reduce the risk of disease transmission. Visitors should wear protective outer garments or disposable coveralls, boots, and hair nets when handling birds and shower and or change clothes when leaving the facility. If using a foot bath, be sure to remove all droppings, mud, and debris from boots and shoes using a long handled
scrub brush before stepping into the disinfectant foot baths. You could also spread germs such as Salmonella that could impact human health. Wash with soap and water, which is always your first choice. If using a hand sanitizer, again, remove manure, feathers, and other materials because disinfectants will not penetrate organic matter or caked-on dirt.

Back to you, Doctor Quinn.

DR. JO ANNA QUINN: Thanks, Andy. The next NPIP principle that USDA is providing expanded guidance on relates to pests as disease carriers, specifically wild birds, rodents, and insects. For commercial growers, this principle requires having control measures in place to prevent contact with, and to protect poultry from wild birds, including feces and feathers. Your procedures should be reviewed during periods of heightened risk of disease transmission. As with every practice, all controlled programs should be documented.

Andy, tell us how this alliance with practices for backyard growers.

ANDY SCHNEIDER: It's important for backyard and exhibition growers to keep your poultry away from wild birds, including their feces and feathers. Do not touch dead birds you see in the wild. Keep the area clean and controlled from rodents and pests. Be aware when there are periods of higher risk and be extra vigilant.
Doctor Quinn, back to you for the final principle.

DR. JO ANNA QUINN: Thanks, Andy. For commercial facilities, the biosecurity plan should include provisions for procedures for cleaning and disinfection of vehicles, as well as the restriction of equipment sharing. Commercial facilities should also define in their plans what the traffic pattern for vehicles will be as they move into and out of the facility.

Andy, back to you.

ANDY SCHNEIDER: Germs make great hitchhikers. If you have been near other birds or bird owners or even to the feed store, clean and disinfect car and truck tires, poultry cages, and other equipment before going home. Again, make sure you hose off mud from tires and wheel wells before going home. Make sure you clean waterers, drinkers and feeders regularly and clean tools and equipment with disinfectant.

Borrowing tools could lead to borrowing disease, so avoid sharing lawn and garden equipment and tools with your neighbors. If you bring these items home, clean and disinfect them before they reach your property, and once used, be a good neighbor and clean and digs infect them before returning them. Some things such as wood pallets and cardboard egg cartons cannot be disinfect. The best advice is to never share wood or paper products.

Now, let's look at some new resources to aid new your
biosecurity practices. APHIS has launched an expanded Defend the Flock education program to provide the tools and resources you need to make sure you are doing everything possible to keep your birds healthy and reduce the risk that infectious disease will spread from your property to other flocks. Defend the Flock resources reflect the knowledge, insights and experience of USDA veterinarian, professional growers and scientists and other experts about the practice of good biosecurity.

Through the Defend the Flock program, APHIS is preparing all poultry owners including backyard growers to implement diligent biosecurity practices. This new outreach campaign updates the two previous education programs, and brings into a single site and knowledge center for all the best practices for preventing the spread of infectious poultry diseases in both commercial and backyard poultry. The goal of the Defend the Flock effort is to reach everyone who works with and owns poultry to join together to protect the health of our nation's poultry flocks.

Here you see some of the new materials that have been created, including helpful checklists. The program offers checklists and other tools, videos, webinars, and educational resources to help you keep your flocks safe and healthy. All materials are available online 24/7 at the Defend the Flock resource center.

We encourage you to follow and share Defend the Flock
graphics and messages on FaceBook and Twitter, where you will continue to find up to date and up-to-the-minute news and information.

I would like to turn the presentation now over to Doctor Nichols to take us through some of the new resources created by the CDC and talk about human and bird health.

DR. MEGIN NICHOLS: Owning backyard poultry can be a great opportunity to learn more about where our food, such as eggs and meet comes from. It's important to keep both your backyard flock and your family healthy if you own poultry.

Next we are going to talk a little bit about Salmonella. Salmonella is a germ that poultry can carry in their gut and still appear healthy and clean. However, this germ can cause people to get sick. CDC estimates that over one million people get sick with Salmonella each year.

Live poultry can have Salmonella germs in their adoption and on their bodies - feathers, feet, beaks - even when they appear healthy and clean. The germs can get on cages, coops, feed, water dishes, hay, plants, and soil in the area where the birds live and roam. Germs can also get on the hands and shoes and clothes of people who handle or care for birds. People who have contact with items like coops or water dishes can get sick without actually touching the birds, and at CDC we call this indirect contact.
Children younger than five years old, adults over the age of 65, and people with weakened immune systems like pregnant women may be more likely to develop serious illness from Salmonella infections. Since 2000, there have been 70 Salmonella outbreaks, which accounts for over 4,000 illnesses, over 800 hospitalizations and seven deaths. We always recommend taking precautions, which includes always washing your hands with soap and water right after touching live poultry. Adults should also supervise hand washing by young children. And use hand sanitizer if soap and water are not readily available. But we recommend washing your hands.

Another important thing to remember is that we don't want to let live poultry live inside the house, especially in areas where food or drink is served, stored, or even prepared. It's important to set aside a pair of shoes to wear while taking care of poultry and keep these shoes outside of the house. Stay outdoors when you are cleaning any equipment or materials that's used to raise or care for live poultry such as cages or feed or water containers. And don't eat or drink in the area where birds live and roam.

Another thing to remember is don't kiss your birds or snuggle with them and then touch your face or mouth. Households with young children, older adults, or people with weakened immune systems need to carefully consider risk of Salmonella infection before purchasing live poultry.
It's important to choose the right animal for your family. Many people enjoy owning backyard poultry for fresh eggs. It's important to remember the five C's. Keep the coop clean, cleaning the coop floor, nests, and perches on a regular basis will help to keep any eggs clean. Next, collect the eggs often. Eggs that spend a significant amount of time in the nest can become dirty or break, and any cracked eggs should be thrown away. You could clean eggs with fine sand paper, a brush or cloth. You don't want to wash the eggs, colder water can pull bacteria into the inside of the egg. Cool eggs by refrigerating after collection, and cook the eggs thoroughly, raw and under cooked eggs contain Salmonella bacteria that can make you sick. If you are interested in more information about owning backyard poultry, there is more information on the CDC website.

ANDY SCHNEIDER: You can find the new home for the USDA APHIS Defend the Flock public education program at APHIS.USDA.GOV/animalhealth/defendtheFlock. Be sure to check out more information on our social channels.

If you are an educator involved with youth organizations or programs, or you are looking for training materials, we would love to share our campaign with you. This presentation along with answers to your questions will be available for download from the Defend the Flock website in the next week or so. Be sure to
follow Defend the Flock on FaceBook and Twitter, and to be notified when the presentation is available.

There are lots of resources available to make sure you practice good biosecurity every time, every day. Here are the publications where you can find more information about the things we discussed today. You can also find organizations in your state and community that help you keep your birds, your farm, and your bird loving family safe and healthy.

And before we go, we would like to thank USDA APHIS and the Center for Disease Control and Prevention for hosting this webinar. On behalf of my co-hosts, Doctor Jo Anna Quinn and Doctor Denise Heard of USDA APHIS and Doctor Megin Nichols from the Center for Disease Control and Prevention, and from me, Andy Schneider, the Chicken Whisperer, thank you for joining us. And let's keep our poultry healthy together!