

WITS-USDA-OFFICE OF COMMUNICAT (US)

Moderator: RJ Cabrera
April 28, 2015
8:00 am CT

Coordinator: Good morning. Welcome to Day 1 of a Public Meeting of the Secretary's Advisory Committee on Animal Health. Please be advised that all participants on the phone are in a listen-only mode. Today's conference is being recorded. If you have any objections, you may disconnect at this time.

((Crosstalk))

Coordinator: As a reminder, please begin all comments or questions by stating your name first for the written record. This is intended for only the participants in the conference room.

RJ Cabrera: I'm sorry. The (Verizon). Just hold on. We've got some back chatter. Just a minute. I'll let you know.

Man: Yes.

RJ Cabrera: Okay. We're going to get started. Right now Verizon will be making a notice, you know, making a notice about how this will be done. And so we'll need a little bit of silence just for now. Verizon, go ahead now.

Coordinator: As a reminder, please begin all comments or questions by stating your name first for the written record. This is intended for participants in the conference room only. Participants on the phone will be in a listen only mode. Speakers that dialed in on the host or leader line may speak freely. You may start the meeting when you're ready. You may begin.

RJ Cabrera: Thank you very much Verizon. We will let you know when we go on break, then come back.

Good morning everyone. As the operator said, this is the last meeting of this (agenda) of the Secretary's Advisory Committee Meeting (unintelligible). I (unintelligible) throughout. We will have visitors coming in throughout the day. Some people chose to sit in on particular sessions. So just don't mind if the folks happen through (unintelligible).

So (unintelligible), you know, the agenda today. We got some remote presentations. But we're pretty well set up for that. I think it will go well, we'll give it a (test drive). So we don't expect any technical difficulties (unintelligible).

We want to make sure that we have adequate time for every speaker and we carved out enough time for presentations, Q&A. And so (unintelligible). We don't need to have too much control on that. But (unintelligible).

Now tomorrow I've carved out time for the administration portion. And I have (administration). So certainly (unintelligible). Carved out time after each

(unintelligible) - consider that topic real time. Just (unintelligible). But again, we can revisit those things tomorrow.

Before we give introductions, I really need you to - say something. I was going to mention it. Turn off your cell phones. Before we do introductions, please turn your...

Man: (Unintelligible).

RJ Cabrera: ...turn your cell phones (off). Don't put them on buzz (unintelligible). And also before we start the introductions, we'll need to speak very clearly. What we found in the past is that for the recording, which the written - the transcript is taken there's some jumbled words (unintelligible) been interpreted (wrong).

So if you just speak clearly. Now we have an extended microphone at this end and this is the - (extends) for the telephone. So just take, you know, care to speak up (and be like) and we can get better transcripts (here). Okay. I think with that we'll start roll call and introductions. Just say your name, (unintelligible) and anything you'd like to share with the community on your experience and (unintelligible).

So for the record these (members) will not be here. Adam Hater, Edmund Orok-Edem, Willie Reed, Scott Stuart and Brian Thomas - a conflict. I believe there are two members on the phone with us today. So we can start with them. Judith McGeary, are you on? (Annette Davis), are you on? Thank you.

Dr. Don Ritter: Hi RJ. Don Ritter's on.

RJ Cabrera: Oh, hi Don, I didn't expect you to call this early.

Dr. Don Ritter: Hi.

RJ Cabrera: Thank you.

Dr. Don Ritter: Yes. I've got an hour or so now and then I'll tap in again later.

RJ Cabrera: Thank you very much. Annette Jones. Okay. We'll check back with her later.
Let's start with you Liz. We'll go around and (unintelligible).

Dr. Liz Wagstrom: Hi. I'm Liz Wagstrom. I'm Chief Veterinarian for the National Pork
Producers Council. I split my time...

Coordinator: If you are a speaker and you did not dial in with the leader pass code you may
press star 0 to be identified.

Dr. Liz Wagstrom: ...sessions perhaps an understanding of now as USDA is facing multiple
disease and challenges, how they're prepared and how they handle dealing
with multiple diseases at one time.

Dr. Cindy Wolf: I am Cindy Wolf. I'm the Veterinarian in the sheep and beef producer and I'm
here representing American Sheep Industry Association. And Liz said it so
well, I'm not sure what more I can add at the moment.

Stacey Evans: Hi. My name is Stacey Evans. I live in Maryland. I work for the animal
welfare interests and I agree with (unintelligible).

(David Beacon): (David Beacon) with the National (Records Association).

(Marianne Nagel): (Marianne Nagel) from Kansas. Beef stock, commercial and feedlot operator
and appreciate being able to have a producer input into the process and try to

see how the rules we make are going to be applied to the rest that have to actually make them work.

Gilles Stockton: Gilles Stockton, Cattle and Sheep Rancher from Montana. And I want to reiterate (Marianne)'s statement. Appreciate that from the position of a producer to participate. And I beg all of you veterinarians to be kind to us. Help us understand some of the issues that's involved.

Dr. John Fischer: John Fisher. I'm Director of the Southeastern Cooperative Wildlife Disease Study at the University of Georgia College of Vet Medicine. I'm - I represent Association of Fish and Wildlife Agencies. Also been very active for several years in U.S. Animal Health Association and I've been a member of the (OIE) Wildlife Working Group since 1998.

This is the producers have expressed their appreciation for the opportunity to be here, I think it's very important that we have wildlife involvement and hear some wildlife perspectives as we face diseases in which wildlife currently plays a significant role. Thank you.

Dr. Boyd Parr: Boyd Parr. I'm Director of Clemson University's Livestock Poultry Health and State Veterinarian for South Carolina. Also currently along with Dr. Jones who hopefully will join us on the phone, currently serving on the Executive Committee, U.S. Animal Health.

Dr. David Smith: I'm David Smith. I'm Veterinary Epidemiologist from the College of Veterinary Medicine at Michigan State.

Dr. Karen Jordan: Karen Jordan from North Carolina. I'm Chair of the Animal Health and Well-Being Committee for National Milk. And I'm just active in the - I'm a Dairy

Veterinarian but I also have a dairy farm. I have a dairy (client). So I kind of live with dairy cows (part of the day).

(William Freeze): I'm (William Freeze). I'm from Southwest Minnesota. I'm here representing the Swine Practitioner Organization but I'm involved with anchor business back in Minnesota with (creating) livestock farming.

Our veterinary practice and really just have 17 vets right now. And they're very concerned about if things break loose there with all species what's it going to do. So I'm interested to see what we've learned from our past diseases and how we're going to apply it for the future.

We - by the way we also have a couple pretty good breaks of avian influenza and one in 3.8 million bird operation about 25 miles away. So we're inundated right now with questions.

Dr. Don Hoenig: I'm Don Hoenig. Before I introduce our guests, I'll introduce - just say who I am. I'm a retired State Veterinarian in Maine (unintelligible) work. Since I retired in - well, (unintelligible). But I'll make some remarks after we - if we could just go around, there's some guests here for those of you on the phone listening in. If you could go around and just have our few guests introduce themselves also.

(Elaine Barr): I'm (Elaine Barr) with the U.S. Government Accountability Office. And (I'm here) to hear about the SECD and (unintelligible) emerging diseases.

Dr. Kathy Simmons: Kathy Simmons. I'm the Chief Veterinarian for the National Beef Association. Special interest today on the foot and mouth disease.

(Laura Hanson): I'm (Laura Hanson). (Unintelligible).

Allison Rogers: I'm Allison Rogers. I'm with National Chicken Council here to participate in the discussion on (unintelligible).

(Kevin Kane): I'm (Kevin Kane), the Director of Governmental Affairs with the Association of (American)...

Woman: (Unintelligible).

Dr. Lee Ann Thomas: I'm Lee Ann Thomas. I am from Veterinary Services. I'm the Director of Avian Swine and Public Animal Health. There's nothing going on (now).
That's what I hear.

Dr. Don Hoenig: Well good. I'm Don Hoenig once again. Good to have everybody here in this rather intimate setting up in rural Bethesda. And so welcome to everyone and also welcome to the last iteration of this committee.

I've been on this committee since its inception (of '09) I guess. But I was also on previous Secretary's Advisory Committee under Secretary Johanns in '05, '06, '07, somewhere around there. So I'm - this is my last - this is my swan song. I did not (get invited) to go back on other (things).

Woman: You many join us again.

Dr. Don Hoenig: Well we'll see about that. But for now I'm - it's time to let somebody else step in. But I've really enjoyed the time on this committee. There certainly is - there's never a lack of things to talk about and challenges to address.

And I mean just look at the past year. Last year in June we were talking about PED, which had been with us for a little over a year and our industry has been hammered (unintelligible).

We'd always be the ones that are (unintelligible) something new. And now this year just an unprecedented outbreak of highly pathogenic avian influenza, which is just very, very troubling and is consuming a vast amount of resources on the part of the industry and state and other regulatory officials.

Avian influenza - I'll just say that avian influenza was the worst disease that I've ever seen in my life. And I saw it in 1983 and you may have heard me talk about this in Pennsylvania. I had just started working for the USDA a couple years before and was part of the READEO, the old emergency eradication organization, part of USDA and was activated in early November of '83 in Pennsylvania.

And immediately went out on - (so we) went out on three farms. And every farm I went on for two weeks was infected with (a high percent of avian influenza). That virus was (unintelligible) virus (unintelligible) that there is.

I mean I was on one (layer) block of 50,000 that killed 45,000 birds and so - and this virus I believe it's similar. I haven't (boned) up on it. Getting a briefing on that a little bit later in the meeting.

So that was just hugely influential in my career and then also I (unintelligible) outbreak in 2001 and that really put me in the direction of emergency (unintelligible).

That's my background and those are my remarks. And I'm sure we'll be talking more about (our current) viruses today as well the avian influenza and

emergency preparedness (unintelligible). So a lot on the plate. And (unintelligible) very, very (unintelligible).

So to start out the meeting I'm going to introduce Mark Davidson who's the Associated Deputy Administrator for USDA APHIS Veterinary Services. And I will let him introduce the individual who (unintelligible) with him, Gary Woodward. And then we'll go from there. So Mark, take it away.

Dr. Mark Davidson: Thank you Don and thank all of you (here) this morning. So appreciate the opportunity speak with you today. As Don said, I'm with Veterinary Services. I'm over our National Import and Export Services.

Dr. (Clifford) will be joining us later today. He is tied up this morning on things with highly pathogenic avian influenza. (He sends) apologies but he will be joining.

So I'm going to start off very brief. First it's a pleasure to introduce Mr. Gary Woodward, the Deputy Under Secretary for Marketing and Regulatory Programs. (Unintelligible) includes Animal and Plant Health Inspection Services. And an opportunity to frequently work with Gary and an opportunity to say a few words.

Gary Woodward: I'm going to stand up at the podium because I'm a little short and I want to make sure everybody can see me and hear me clearly. And I apologize for being a few minutes late. Hopefully I wasn't the reason why you guys weren't able to start on time.

I learned two very important things on the way here this morning. Is that I live in the city very close to my office and I didn't realize quite how that traffic

was (unintelligible). The second thing I learned is I have probably the world's dumbest GPS on my car. All of the (unintelligible).

But thank you all for letting me crash your party here this morning. I promise I'll be brief because I know you all have a very full agenda. But again, thanks for letting me come and address you this morning.

Again, as Dr. Davidson said, (I work) as the Deputy Under Secretary for Marketing and Regulatory Programs at USDA, which is a mouthful but it's (honestly) not quite as important as it sounds except to my mother who thinks I'm very, very important. So I really don't want to burst her bubble.

But as Dr. Davidson said, this area includes the Animal and Plant Health Inspection Service, which of course what brings me here this morning. But it also includes the agriculture marketing service as well as the Grain Inspection, Packers and Stockyard Administration.

But let me start by saying on behalf of Secretary Vilsack, Under Secretary Avalos, (of course) APHIS, (unintelligible) USDA, myself thank you all so much for taking time out of your busy schedules to come and participate in this Advisory Committee.

So we got - I've been on this for several years and so it's really been a time commitment, an intellectual (package) commitment and certainly appreciate all of that work, especially those of you who are producers.

(Caused) a lot of heartburn for you all to have to leave that operation and find somebody to (unintelligible) while you're gone. And let me assure you that the Secretary is acutely aware of your efforts and (unintelligible).

And one of the Secretary's highest priorities is improving the way the USDA conducts the business of regulation (unintelligible) because it, you know, (unintelligible) be transparent and lucid and effective and that's very much where you all (unintelligible).

You know, the Secretary asked me to convey that (they're) really proud of the work that these committees do and this committee (really) because of that (unintelligible).

But as some of you alluded to earlier, you really represent an important conduit between regulators and those who are affected by (unintelligible). And, you know, the topics that come up (unintelligible) top priority for USDA. So we're looking forward to your input for the work (unintelligible).

(Unintelligible) I just want to (be that) support as well with the (unintelligible) but I don't mean support as in as a cheerlead. We're not necessarily just looking for a pats on the back for the work that APHIS is doing. We just (unintelligible) about that work. And it's the support that really means (unintelligible).

So (unintelligible) so don't pull any punches (unintelligible). As (traditionally) one of the topics that you guys will be discussing a lot over the next couple of days I'm sure is avian influenza. You'll go in detail on that later so I won't really go into it now.

But I just wanted to say thank you all - the folks in this room, to the states, to the industry, private sector (department) we're working kind of (unintelligible). You know, you got that probably (unintelligible) program in the world actively looking for (providers) out in the countryside.

And one of the (unintelligible) I can't think of any other - other than me that actually offers (unintelligible) quite stronger (unintelligible) that's reported. And as well as the response (unintelligible) developed around (unintelligible) industry (unintelligible) integrated. (Unintelligible) supply chain (will be) invested in (unintelligible) response is sort of the key to helping us respond quickly to the (unintelligible).

So we'll continue to coordinate closely with state officials, federal officials, private sector partners to continue to (do) surveillance and (unintelligible) the influenza outbreak as part of the top priorities. It takes a lot of manpower, a lot of (unintelligible). And so we hope that the presentation (unintelligible) now and the future should there be (unintelligible).

So I think I will stop there (unintelligible). I just wanted to say again I thank you all for taking so much of your time not only this weekend but (unintelligible). And I apologize (unintelligible). I'm going to have to because I've got prior engagements back downtown. (Unintelligible).

(Unintelligible) talk to me at any time on these issues, any other issues. Please feel free to do so. And, you know, my inbox is always open (unintelligible) inbox is full notification so there's nothing to bounce back. And again, thank you on behalf of the Secretary and the department for your (unintelligible).

Dr. Mark Davidson: Thank you Gary. I appreciate you joining us today. So I want to get into the few remarks that are in the agenda for you all today and let you get down to the important work.

It's an honor for us to discuss our APHIS role in maintaining (unintelligible). We said before we know it's a lot of hard work bringing together some of these different viewpoints on agriculture. And it's very important to use your

insights and recommendations to help us address the many challenges in animal health. And (we) look forward to hearing your discussions on the topics today.

We'll continue to look for input on matters that directly or indirectly impact animal health. And we recently received your report from the last committee meeting and greatly appreciate your input that you provided. We're currently reviewing that report. And a few of the topics that we have today are a direct follow up to the discussions from our meeting last year.

So I want to take a opportunity to provide you a brief update on a few of the topics that we'll be discussing today and tomorrow and frame them up for it. So I think all of these we've heard mentioned in some of our comments and interests you want and your participation on the committee.

The first one to talk about is our Porcine Epidemic Diarrhea Virus. Specifically we're asking the Secretary's Advisory Committee on that help for feedback on the value of mandatory reporting, the Swine Enteric Corona Diseases, the financial support that USDA has provided for (disease).

(Unintelligible) we're - USDA is asking for your guidance for a future control strategies for (unintelligible). I think as we found first PED, Porcine Epidemic Diarrhea Virus and then the Porcine Delta Coronavirus in 2013 and 2014 respectively we're the first (unintelligible) United States.

We saw as mentioned extraordinary morbidity and mortality of young pigs had significant impact on the pork industry. We've had a collaborative response of the industry from veterinarians or state animal health officials is that USDA agents and other parts of USDA. And we have a much better understanding of those viruses and the needs today.

And we've seen a massive reduction in pig losses in 2015. That said, there's still more understanding, a lot of work and discussions on the direction that (unintelligible) forward. So we provide you some updates on that. We look forward for your discussions, input and recommendations.

I won't spend a lot of time on the details but avian influenza is all hands on deck (at) APHIS Veterinary Services. This outbreak is probably the - it is the top item on all of our minds. And we're spending a lot of resources working this (in the) industry and the producers in (tracking) the outbreak.

As of Friday, we had identified (high capacity) avian influenza in 13 states, a total of 87 premises populated over eight million birds. Our financial commitments from (unintelligible) total \$54 (million). That only enforces our preparedness activities. The (unintelligible) familiar with our - how we (unintelligible) influenza response plan such as a secure egg supply, a secure turkey supply.

If there are none available then we need the critical need of such plans to (unintelligible) be developed and utilized at the local (unintelligible). Have updates on that. I look forward to the (unintelligible) certainly a serious issue (unintelligible) a response and also mitigating the (tracking) impact of this (unintelligible). Very hard.

There's a number of foreign countries (unintelligible) their impact to the control (zone state) or mitigated impact. But we still have some countries that have banned the U.S. (unintelligible).

The next area we want to set up and we'll do that tomorrow morning is emerging (unintelligible) about the Swine Enteric Corona. This is a perfect

example of emerging disease. Going to talk to you about our national list of reportable animal diseases and a national framework for emerging (unintelligible).

The rapid detection of (unintelligible) critical (ban) on agriculture. In 2014 we (unintelligible) two animal health concepts, papers; national list of reportable animal diseases and the national framework for emerging disease response.

Both of these papers were published on our Web site in October of 2004 for public comment. Sent out APHIS stakeholder registry notices to (gain impact) or be evaluated. But I can't get this abbreviation so our national list of reported animal diseases it provides consistent disease reporting and will likely include reporting requirements for state animal health officials, laboratory personnel, practitioners, producers and others.

The diseases are proposed to be within two categories. They're (notifiable) or monitored. (Notifiable) is - are those that require reporting to the veterinarian authorities within defined timeframes; emerging incidents, emerging disease incidents and regulated disease. And the monitored disease would be reported periodically.

So there's been a lot of work to develop these concept papers. And for our national list - the draft national list was a very deliberative process that involved the USAHA (ADLD) Committee on Animal Health Information Systems; the National Health Reporting System Steering Committee of Veterinary Services; National Assembly of State Animal Health Officials; a number of other stakeholders that supported these efforts have been directly involved in developing the list.

The framework for developing effective response to emerging diseases by (unintelligible) the United States. This framework will help APHIS consult with our stakeholders to identify (evaluate) emerging diseases as they occur in other countries and the United States. We want this to be a collaborative and science based process.

There are four goals that are laid out in the document for directing emerging diseases. The first is undertake local awareness, assessment and preparedness for the animal disease (such as) pathogens that are not currently in the United States but may become important animal health concerns or have traces (unintelligible).

Next is when these occur in the U.S. to be sure we're prepared to detect, identify and characterize these diseases (early). That we can then communicate our findings, inform our stakeholders, develop the appropriate response when we identify the impact of (unintelligible).

For these four topics we heard comments from members of the committee. The next topic that we'll talk about is the antimicrobial (unintelligible). This is a topic that we did discuss last year. And it seems to be a priority for us this year.

The USDA, Food and Drug Administration, FDA work very closely together to identify and mitigate emerging threats to America's food supply. The FDA is the lead regulatory agent with respect to antibiotics. However, USDA is a very critical and important part of the solution to address this challenge.

For over two decades USDA has been involved with conducting surveillance, basic and applied research and education and outreach to assess levels of

antimicrobial existence. (Unintelligible) to develop effective mitigation strategies for (unintelligible) and to assist producers (unintelligible).

We have made an important contributions to understand and control animal production and animal (unintelligible) to reduce its development (unintelligible). There's some key components. USDA has released action plans for antimicrobial research. Components of this are that voluntary participation for producers.

Given the voluntary nature of the efforts, we need to assess the outreach of communications to ensure collaborative efforts with our stakeholders, develop a practical, effective, efficient surveillance research (stewardship plan).

So as that copy comes up, again we welcome your input, feedback. And I just kind of want to mention a couple of other topics on our agenda. Will also be a presentation of the - (about) disease preparedness, a topic we discussed last year. Wanted to follow up and update input as (we move) forward on this important topic.

And then we have two presentations on (unintelligible). One is on tuberculosis (unintelligible). One is on fighting (unintelligible) and the TB molecular (epidemiology).

So with that, there's a very full agenda. I do want to thank you again for today's discussion that will occur (unintelligible) you all's work. And back over to RJ or Don to get started.

RJ Cabrera: Thank you.

Man: RJ.

RJ Cabrera: Okay. So we're a little (unintelligible) gone. He'll be joining us later today. Let me just say a word about how we ended up here. So we planned to go to San Antonio because I (unintelligible) committee management (unintelligible) work out (of the diseases).

So we primarily had to do (unintelligible) looking to go out to (unintelligible). That still (unintelligible) just a little late in the day, which is how we ended up here in (unintelligible) escalated (unintelligible).

Unfortunately we are bound to (break for lunch) (unintelligible). But (unintelligible). I'd like to take a brief break. It may get a little warm in here. I turned the vents off. (They'll) turn it back on. Any questions (for me)? Maybe have one more (unintelligible). Did you say you're new?

Woman: (Unintelligible). No. I'm (unintelligible).

RJ Cabrera: And (you are). And I am sure (unintelligible).

Woman: (Unintelligible).

RJ Cabrera: And at the end of the day you (unintelligible), make comments on what you've heard throughout the day. But it will (unintelligible). And the last topic of the day (unintelligible). But let's check again and see if we have any of our members online. Annette Jones. Annette Jones, have you signed in? Judith McGeary.

Judith McGeary: Hey RJ. I'm on.

RJ Cabrera: Good morning. Judith, why don't you introduce yourself?

Judith McGeary: My name's Judith McGeary. I'm with the Farm and Ranch Freedom Alliance. I'm a small-scale sheep and beef producer. And we're based here in Texas. I wish you guys were down in San Antonio. And I'm looking forward - I'll only be able to be on probably today but I'm looking forward to the discussions.

RJ Cabrera: (Unintelligible). All right. (Unintelligible).

((Crosstalk))

RJ Cabrera: Verizon. Verizon.

Coordinator: Yes Ms. Cabrera, I'm here.

RJ Cabrera: We're going (to take) a break for about 20 minutes (unintelligible).

Coordinator: Okay. All right. Thank you.

RJ Cabrera: (Unintelligible). Now we are going to receive a presentation from Brian McCluskey in Colorado. He's giving a remote presentation on Swine Enteric Coronavirus. Brian.

Brian McCluskey: Yes. Good morning. Can everybody hear me okay?

Man: Yes.

Brian McCluskey: Okay. So what I'd like to do for the next few minutes is just provide some background information for you all on Swine Enteric Coronavirus Diseases and the very collaborative response that has occurred over the last couple of

years, collaboration between industry partners, state partners, laboratory partners and obviously between - and with the USDA.

So when we talk about Swine Enteric Coronaviruses most everybody is very familiar PED or Porcine Epidemic Diarrhea Virus. But I think it's really important to point out that we were actually dealing or have been dealing with two novel Swine Enteric Coronaviruses and Porcine Delta Coronavirus or as we have it here in sort of nomenclature calls it TDCoV.

Both of these are obviously coronaviruses, cause very similar clinical signs. They do have some level of differences in morbidity and mortality. Delta Coronavirus does not create quite the same levels of morbidity nor mortality. But both were novel to the United States and were essentially dealt with in the same way as far as response goes.

So we'll focus a little bit on PED because it's the one that's known about in a lot more detail. There were outbreaks in Europe in the late 1960s of diarrhea particularly in weaning our feeder pigs that was a little bit confusing to the folks that were trying to diagnose this.

They were certainly familiar with (TGE), another coronavirus we'll talk about in a little bit. But this one did seem to be a little bit different. Then in the 70s they started to see this actually starting to affect swine of all ages. Again, this was primarily in Europe.

By the late 70s they did identify this as a different coronavirus and called it Procine Epidemic Diarrhea Virus. And in Europe they've been dealing with it since the 70s and it really doesn't cause all that much morbidity nor more mortality there. It's something they diagnose on occasion but haven't really had to respond to it in any type of control fashion.

In 2010 through 2012 there were a lot of outbreaks in various places in China; a very high morbidity and mortality in swine production units there from PED virus.

And so since that time just to get a little bit oriented on how widespread this has become, there are a number of countries in Asia, Thailand, Vietnam, China, Japan, Korea that have now diagnosed this more - high morbidity mortality strain of PED.

Canada has obviously found some. Some South American countries have found it, Columbia being one. They have found it in the Dominican Republic. Now there are reports in Europe from the Netherlands and from China that have actually found this strain that can cause high morbidity and mortality. And then obviously the United States.

So when we first detected it in the United States of course we did a lot of molecular work to try and characterize the virus itself. And what we found was at least the initial virus that we detected in the U.S. was very, very closely related, 99.7% at one point, related to a virus that had been found in Anhui Province in China.

And so this map is showing you where Anhui Province is. And they found a number of different PED viruses throughout China and have characterized those into different groups - molecular groups. But of interest to us was we had a virus that was now in the United States that was very similar, almost identical to one that was - had been detected in China giving us some indication of at least its origin.

It may not have come directly from China to the U.S. but we knew where its origin was. So I'm sure most of you have heard about, you know, what PED and Delta Coronavirus causes. And so we get a very acute watery diarrhea, can cause vomiting in the younger pigs, suckling pigs.

The diarrhea is so severe that they become dehydrated and really it creates dehydration and acidosis and (stasadosis) and so we end up with very high mortality in those really young pigs. They just - they can't keep up with the - with hydration.

Older pigs, so feeder grower pigs will get diarrhea for short periods of time. They might be a little bit depressed. But we really don't see a lot of death in those feeder grower pigs. And they usually bounce back pretty well. Sows. The sows will also get some diarrhea. They might vomit. But again, very, very low mortality in those aged pigs.

So severity. What we found over time the severity of the diarrhea or the clinical signs really does depend on the - not so much the epidemiological status but the immunological status of that herd.

And through time swine practitioners in the swine industry has done a - I think just an absolutely incredible job of figuring out how to keep high levels of immunity in those pigs. And really that's the primary reason why we're not seeing the huge losses of pigs that we did in the early part of the epidemic.

And as it says here in this last bullet - so this clinical picture almost - is really almost indistinguishable from transmissible Gastroenteritis Virus, another coronavirus that's been known about for years. There are vaccines available for it. Again, herds manage for this in various ways. But we don't generally

see the high levels of morbidity or mortality with (TGE). Sorry. I've lost my mouse here for a second. Here we go.

And so the differential diagnosis for SECD does obviously include (TGE) but there's another viral disease Rotavirus that actually can cause these clinical signs in younger aged animals.

There's a number of bacterial diseases, e coli, salmonella that can cause this as well and parasitism. So really no doubt became an issue I think at first but because of the high morbidity and mortality and the diarrhea and vomiting it became pretty easy for folks to diagnosis this by observation.

This is a fecal orally transmitted virus. And it is amazingly low infectious dose for this virus. This chart, a little difficult to read, but essentially what it shows is a virus dilution of ten to the minus eight can still cause diarrhea in experimentally inoculated pigs. And those experimentally inoculated pigs will then shed a lot of virus that can be detected by PCR.

So a really low infected dose. So anything that is contaminated with a pig manure or feces can then be considered a vector or introduce the virus into uninfected herds.

So, you know, it definitely transmits extremely well pig-to-pig, full (might). So anything that's coming into those pig barns, boots, people, the vehicles can track it onto the farm. Certainly feed has been implicated in a number of infected farms as the introductory vehicle. And then people. People walking in the barns, people moving from one location to another can also be a significant pathway of introduction of viruses into uninfected barns.

And so early on in the outbreak in the summer of 2013 USDA partnered with the American Association of Swine Veterinarians, the National Pork Board in the design of a case control study to quickly try and get on some thoroughly infected farms to try and determine the introductory pathway or the factors that were - might be associated with introduction of virus into those early infected farms.

It was a fairly small study. I think we ended up with 25 case farms and maybe 17 control farms. And what - I don't expect you to necessarily, you know, assimilate what I'm showing you here on this slide but just had highlighted some of the significant variables that all had some relationship to feed.

So, you know, the origin of sow feed use in the last 90 days how many different rations were fed, total number of rations, the contents of pre-mix and the most recent finisher diet. Those types of things came up to be significant in this case control study - this very early case control study. And so this led folks to start thinking that feed might be one of the ways that this could be spreading fairly rapidly across the United States.

Another hypothesis was around air born spread. And this was really generated because of a cluster of cases that was occurring in the panhandle of Oklahoma. Again, a fairly early on in the epidemic in 2013.

And so some folks from the University of Minnesota -- this is actually their work -- in collaboration with three different companies out in that area. They did some air sampling. And you can see that they examined air or did sampling from a number of different distances from infected positive sites and were actually able to detect virus from these sites at least by PCR, you know, three miles away and even up to ten miles away.

And PCR -- just to get everybody sort of on the same page -- is really only the detection of viral genetic material. It doesn't necessarily indicate that you have infectious virus particles. But it is a pretty good indication that at least that viral genetic material is moving through the air for pretty long distances.

And so this hypothesis of air born spread was tested and I think that there was pretty decent evidence of that. But I think through time we've shown that that's probably in some very specific or isolated cases might be happening. But really the fecal oral contamination of fomites, people, vehicles, feed is probably much more likely to have occurred in most of the cases that where infection is occurring.

Also with this cluster of cases in Oklahoma some analytical work here at the Center for Epidemiology and Animal Health and APHIS and (Fort Collins) looked at this hot spot analysis. And so essentially what this does is this looks at the relationship in distance from each of those infected sites in this smaller area in Oklahoma.

And the red spots are the really hot spots where there is a higher density let's say of infected sites and then it sort of moves out into these other areas where it's a little less hot. And this is what you do first to allow you to then - in the next part of this study we were trying to substantiate this idea of wind born spread.

And so you did that first cluster analysis or hot spot analysis to show that you actually did have clusters of cases. And then we overlaid on top of those clusters what the average daily wind speed and direction was.

And then you can actually apply some statistics to that to show that indeed the average daily speed and direction of the wind was similar to the spread and

direction of the outbreak in this cluster of cases. And so I think this just provided additional evidence that that wind born transmission was possibly occurring at least in this particular cluster of cases.

So one of the efforts that again was a real collaborative effort between APHIS and industry folks - APHIS provided some cooperative agreement dollars to the National Pork Board to support conducting individual herds or system level investigations. And we called these rapid response investigations.

And so we were - we conducted those on isolated - where there were systems or herds that were isolated geographically or that they really had no other link to other PED positive operations or experienced simultaneous clinical signs in a bunch of their sites, you know, with really no other explanation for why that was occurring.

And our objective of those investigations were to again try and determine the potential pathways of introduction of the virus into that system. And we did that through a standardized investigation forum but - and that was through personal interview and actual site visits.

One of our - one of the - an APHIS epidemiologist as well as someone contacted through the National Pork Board with swine production expertise would actually go to these sites, sit down with the managers, walk through - actually do observations, complete this questionnaire or this investigation form. And the walk through part was also to assess the current bio security practices on that operation.

This slide's a little bit dated but I think we've done 11 of these types of investigations now. At the time that this slide was put together I think what we

were able to glean from them is on two of those investigations it certainly looked like feed was the most likely introductory pathway.

On one of those it certainly looked like spray-dried plasma was implicated. And on another it was a new delivery of feed pellets that was the introductory pathway.

On another investigation it was - there was really no doubt left that it was introduction of new pigs. This was a very small-scale producer in the Northeastern United States.

And then on three investigations there certainly seemed to be indication of some bio security breeches. And some of that was trucking, some of that was employees not in full compliance with the bio security practices that the company had put together for each of the barns, so.

And on some of these they were very large, very highly integrated systems with really extensive bio security plans that weren't necessarily being followed to the letter.

So on the next - that's just some background on some of the work that's been done. This next section of this talk is really more about the response. And so when we first detected this in May or confirmed it in May of 2013, conversations of course were held fairly quickly between the USDA and the industry and state departments of agriculture about how we wanted to respond and what was the best way to respond.

And so it was determined we would have non-regulatory response. There would be no mandatory reporting and no movement controls would be initiated at that time.

We, as I've just gone through with you, initiated a number of epidemiological studies to try and investigate into her transmission. Also epidemiological investigations to try and assess or discover the introductory pathways not only into individual herds but how did it actually get into the United States in the first place.

And then a lot of industry and academia led research efforts to understand bio ecology and disease dynamics. The National Pork Board has funded many, many projects in this regard, ecology, disease dynamics, immunology, looking at bio security practices and what works best.

Have really put a lot of effort into funding those and some really good work has been done. And I think the results of that work is why we've been able to get this really under control in the space of about a year and a half.

So I did want to talk because of our decision to not have mandatory reporting. I wanted to talk about what kinds of reporting was actually accomplished at least initially.

A lot of testing was being done through the National Animal House Laboratory Network group of laboratories. It was agreed that from the industry - the industry agreed, the Laboratory Network agreed that APHIS would start to compile that laboratory data that was being collected through those NAHLN labs.

This was done in a voluntary fashion. And so APHIS started to receive from those NAHLN labs on a weekly basis reports of the testing and those test results. There was some minimal epidemiological data associated with that. So

we were able to get the state - in most cases we were able to get the state where the sample was collected but not always.

We were not able to - we could not have premises identification. So while the map you're looking at now can show you that there were 2385 accessions tested positive for PED in Iowa, that did not mean there were 2385 individual herds in Iowa that were PED positive.

We didn't know how many herds there were. It could have been more than that. It could have been less than that. We didn't know. But this was the best that we had and so we were - we created a weekly report looking at this NAHLN accession data.

It included this map and then also this was - graph was used as a pseudo epidemic curve. So this is essentially looking at the number of positive laboratory biological accessions. And the green line here shows you how many accessions were actually tested in each week. The blue line the numbers of positives.

And so the - you can see through the first winter, the winter of 2013, 2014 we definitely had an increase in the positives and then it (fell out) through the summertime and into the fall of 2014.

But the impact of disease through that winter period of 2013, 2014 really called for a greater federal and state role. We were getting - we, the USDA was getting a lot of questions from international partners and some other stakeholders within the U.S. about getting a better understanding of the spread and characterizing, you know, where the virus was and hopefully by understanding that maybe trying to get a little better handle on control.

And so in June of 2014 the USDA put out a federal order. That federal order required reporting. And there were a number of data elements in that reporting that it required and that included premises identification numbers. It included information regarding who submitted submitted the sample so that we could go back to them and reconfirm positive cases - in our case a positive case had to have a positive PCR test and also clinical science.

And so what this mandatory reporting really allowed for was a better determination of disease incidence. So you know, what are the number of new cases that are occurring, definitely improved tracking of disease spread so we were able to determine how many herds in each of these states were confirmed as positive.

And through some sequencing work with the mandatory reporting would also allow us to detect new viruses - if new viruses were coming into the US.

So this is a table out of our national situation report that's put out once a week. I think this one's now at least a week old but what you're seeing here is quite a bit different than the data that we were collecting - that was on the voluntary basis.

So if you look in that column for PED where it says the new confirmed positive premises this week, it says 26. And so those are 26 individual herds that we know had a positive PCR test and also had clinical signs of disease.

Presumptive positives are those that have a positive PCR but did not have clinical signs of disease.

And since the federal order was put in place in June of 2014 the confirmed - the total confirmed positive premises in the US is somewhat over 1200.

We did put into place a way for - this was asked for by some folks in the industry so once we're on your positive list then how do we get off? And so working with the industry and developing some protocols on - you know, how folks could attain negative status we do have a number of herds that have gone through that process.

And it's a series of testing and then an affirmation by the herd veterinarian that they've been through that testing. And so we have had a number of herds - not a lot but a number that have gone through that process and been determined to have gone negative.

This is what we would consider to be an epidemic curve although at this point based on the number of cases that we're continuing to find, it's not really an epidemic curve any more, it's an endemic curve. But at least we do know that these are the number of cases individual herds that have been identified, confirmed positive for PED and delta coronavirus in each of these weeks.

And you can see that - you know, after the end of December and sort of through January and February we actually did see a little of an increase in a number of cases but the vast majority of those were actually in grower or finisher herds and so it wasn't - we did not see that huge loss in baby pigs that we saw in the winter of 2013-14. So while there were a number of cases being detected it was not having nearly the same effect on the industry as - in the first year of the epidemic.

And so this looks like the same map I showed you previously but this is actually from the mandatory reporting. And so here you can see if we go back to looking at Iowa, I think before we had 2300 positive accessions. Now we

have 517 confirmed positive herds and 89 presumptive positive herds. So 600 or so herds at least are having positive PCRs at this point.

And I think it - the true number of herds in Iowa that have been infected with VD is probably somewhere between that 600 number I just said and the 2300 number that was on the previous map.

We're just - because we didn't have mandatory reporting from the beginning we're probably not going to know exactly how many ever but I think we have a better handle now on the true number of confirmed positive herds and we can actually look at some incidents - the new cases that are occurring over time.

I did want to talk just a little bit about data and how it's been managed within the USDA and one of the things that the enteric coronavirus - that the epidemic did create for us was creating some more robust data management systems and actually having a real life opportunity to test them and make them work more efficiently.

Our emergency management response system, EMRS, is the system we use to collect and manage resource data but also disease mitigation data and it's sort of been our warehouse for this mandatory reporting data.

Now the laboratory messaging system is the database that receives the information - the test information from all of the NOL laboratories. And in the couple of page right up that I had sent ahead, it does mention that there's a number of the NOL laboratories that are actually using the HL7 messaging now.

So an electronic message sent directly from the NOL lab to the LMS - so there's very little data manipulation and then that data moves directly out of LMS in the EMRS so they can be combined with the epidemiologic data that we're collecting.

This was - for us, a major milestone in the way we were moving laboratory data and combining it with epidemiologic data so I definitely - a plus coming out of our response to SECD.

One of the other requirements of the federal order was herd management plans. These were required for herds meeting the definition of a confirmed positive case. They were developed between the owner of the operation and their veterinarian. The USDA (unintelligible) approved those herd management plans. We were not involved in really the development of them.

And on the next page here you can see that this was more of a checklist of the things that were occurring on that particular farm as the herd management plan. We rely very heavily on the swine practitioners to work very closely with those herds to develop the specifics around this.

But we did create some major categories that we felt were important, (unintelligible), livestock transport, biosecurity of employees entering and exiting, those types of things.

And so for each of the confirmed positive herds all 1200 and so of them that we have had, they each have a herd plan and something that's signed by their producer and their veterinarian that's been sent to the USDA.

We did receive some emergency funds to help support the response effort after the federal order. So the federal order came with \$26.1 million. We - the

original funding was divided into these various funding streams so it was about \$4 million that was set aside for vaccine development.

And I think that that's kind of a - probably too specific a category, vaccine development. It was to be used by the Agricultural Research Service to do some basic immunological work research to help move towards development of a vaccine that would be efficacious for this.

We received \$2.4 million that to support laboratory testing so - and I'll talk a little bit about that in a minute, some additional money to support viral sequencing.

And then the largest stream here was \$11 million for biosecurity support. The industry made it really clear that their preference was that they would go ahead and cover their biosecurity costs and they wanted to see the majority of the money actually be used to support laboratory testing.

And so that is what we have done and we've moved funds from the biosecurity line here in- for the support that diagnostic testing. And we're paying for a vast majority of that testing that's being done on these herds.

One other very concerted effort that's been occurring for the - close to a year was the work done to - and we've called it our root cause investigation. So it's the pathway of introduction into the US. And there have been a group of epidemiologists and others across (AFIS) that have really looked at a whole long list - you can see the list here of potential ways that that virus first came to the US.

We've completed that investigation to - mostly there's a few experimental things still going on, trying to wrap those up. But a real concerted effort to try

and find that introductory pathway so that we know how PED and delta coronavirus arrived but maybe even more importantly so if we do have the proverbial open window of potential introduction of viruses that we close it or at least do what we can to mitigate that pathway.

And so finally I just - some incredible information on PED and delta coronavirus and the way producers can implement biosecurity, all of the research efforts that have been supported by the national pork board are at their website, Pork.org.

There's - again, a lot of information at the AASB website and then (AFIS) (unintelligible) services certainly has a lot of information on our website about what we've done, all of the national level stationary reports are available there. Every week we put the new one up there.

So RJ, I think at this point if there's questions on the presentation or if we jump into the summary discussion, you know, whatever we need to do from here.

RJ Cabrera: (Unintelligible) you're comfortable we'll wait on (unintelligible). Let's do Q&A and then maybe (unintelligible) deliberations.

Dr. (Brian McCoffey): I'm sorry, RJ, I cannot hear you.

RJ Cabrera: Yes, we're getting that fixed, (Brian). I just mentioned that we'll go right into Q&A and if we need a break before deliberations and discussions we'll do that. But we're going to open it up - I 'm going to turn it over to (Don) and - of course, (unintelligible).

(Don): Sure. Thanks a lot, (Brian). That was a very through presentation and I guess I'll start out with just one question that goes back to the last slide, I think about pathways.

Were you able to get any more clues as to pathways? I was really interested to see how many different routes you looked at and did any of those kind of pan out? Or are you still pretty much in the dark?

Dr. (Brian McCoffey): Well, (Don), I think we have - the way that Dr. (Aaron Scott) who led this effort kind of went about this - it was certainly more of a qualitative assessment with attempts to find either evidence from the literature of as I said we're actually - we've actually - we have some experimental studies that we're funding.

It's a couple of different universities to try and give us additional evidence for some of these pathways.

And (Aaron) created - or his group sort of looked at different scenarios and it needed to meet - however it was introduced, it needed to meet a few criteria, one of which, you know, it needed to - we needed to have an infected virus arrive here and then it needed to somehow disseminate itself from Indiana to Ohio to Iowa to Colorado in the space of about ten days and then infect the pigs.

And so that narrowed the potential pathways down - I think, pretty considerably. I think we are looking at - you know, one kind of input that, you know, all farms have to have is feed. And when I say feed I don't want to say that there's any particular feed that's infected. We know that feed is treated, most of its heat treated. It's probably killing the virus.

But we're also starting to look at feed delivery systems. So what does the feed arrive in? you know, could the container be potentially contaminated because the containers might be coming from Asia? We know we import a number of different products from Asia to the US.

So could that container been contaminated and then arrive in the US, arrive at a feed mill and then get distributed fairly widely, you know, pretty quickly.

So you know, I don't think we - I would love for us to come up with, you know, the smoking - the proverbial smoking gun and have all kinds of statistically significant values to show that it was this one thing or these two things. But I think we've developed some scenarios that seem biologically plausible and we have some evidence to support - some evidence to support that that's a likely pathway.

(Don): Thank you, (Brian). Other questions for (Brian)? (Unintelligible)?

Man: (Unintelligible) (Stockton). Dr. (McCoffey), could you explain the legal mechanism from becoming a non-reportable disease to a reportable disease? How does that happen and why wasn't this a reportable disease from the very beginning?

Dr. (Brian McCoffey): Right, so I think you're getting a presentation tomorrow on our national list of reportable animal diseases and the work that we're doing to create one of those. And so at this point there is not a national list of reportable animal diseases. Individual states certainly have lists of reportable disease and in many cases it's - in the states, PED wasn't specifically listed as a reportable disease but an emerging disease of some sort was.

And so I know that in some of the states we've been dealing with PED was considered reportable.

From the national perspective, we - as I said, we didn't have a national list. We do. We have in the past looked at, you know, what were OIE listed diseases and that certainly helped inform us as to what we would require reporting for and what we wouldn't.

Again, PED and delta coronavirus were not any OIE list either. And so this one really fell in a bit of a gray area. It was an emerging disease in the US and so typically with these emerging diseases it is a conversation between state government, federal government, and the industry potentially affected as to how collaboratively we want to respond in both reporting and in control measures that might include movement controls - you know, and other things like that.

But I think if I'm not mistaken in looking at the agenda you are going to hear quite a bit more about the national list of reportable animal diseases tomorrow.

Man: Yes, we are.

Man: Yes, we are but - you know, but this is a concrete example of - you know, (unintelligible) why it might be necessary. I mean so legally you don't have the authority. How do you get the legal authority?

Dr. (Brian McCoffey): Well, I think - and I'll claim right away, I'm just an epidemiologist but I think that we do have the legal authority through the animal health protection act to require mandatory reporting of any disease that we deem - you know, we need to have that for.

Again, I think it's a - it's that collaborative discussion amongst industry partners and others that, you know, occurs up front as - you know, to determine the best way to respond. I think having some level of reporting - mandatory reporting initially with PED would have allowed us to at least understand it better earlier.

Without movement controls or some other kind of control I'm not sure we necessarily would have been able to prevent its wide scale spread just because of the way the swine industry is set up right now and needing to move animals. But we would have been able to understand why it was spreading earlier.

Man: (Leeann), do you have any - (Leeann Thomas) - this is (Leeann Thomas) from the (OCA).

(Leeann Thomas): Hi (Brian), and just to address your question from what we did do legally, the federal government can issue a (unintelligible), which is - like an executive order the President issues except we issue them at the departmental level and those (unintelligible) Office of General Counsel.

And it is for one small (unintelligible), i.e. (unintelligible) requires (unintelligible). So that's the - that is the legal mechanism that we use.

However, in discussions with our legal counsel, when we ask them could you - could we establish reporting - mandatory reporting as been described and will be described in more detail tomorrow? Could we do that through a federal order? No, we had no legal ability to do that, require reporting under a federal order.

So we're looking at (unintelligible) to do that. But we do (unintelligible) a federal order (unintelligible) legal ability to require reporting (unintelligible).

Man: Did I understand that?

(Leeann Thomas): Yes. It's the legal - we do have a legal mechanism and we used it (unintelligible) to require reporting (unintelligible). I'm sorry, SECD, swine enteric coronavirus disease of which PED (unintelligible).

Man: (Unintelligible). Okay, so the problem initially is that the laboratories reporting the disease but you didn't have the (unintelligible) to the premise. Why is that?

Dr. (Brian McCoffey): Right, so the laboratories were providing us test results information so we knew positive tests and we had laboratory accession numbers. We had some - like I said, associated (unintelligible) data so we knew what type of operation it was, whether it was a cell form or a growth finisher.

In some cases we knew that state where the sample was taken but sometimes that actually wasn't from the state it was taken. It was from corporate headquarters or something like that.

And so we did not have premises IDs because the relationship that those laboratories have with the veterinarians and the producers that are submitting those samples, they did not want premises identification numbers shared.

And so because it was voluntarily - that all of that data from the labs initially was voluntarily given to us, the one thing that was not voluntarily given were their premises identification numbers.

Man: And these would have been the same premises identification numbers from (unintelligible)?

Dr. (Brian McCoffey): I'm sorry. I didn't hear. It was very, very garbled.

Man: Sorry. These would have been the same premise identification numbers that are invited in the interstate movement requirements?

Dr. (Brian McCoffey): Yes. Yes, these are the premises identification numbers with the national database of premises identification numbers, that's correct.

Man: So for the interstate movement requirement really didn't play a role in this epidemic much then.

Dr. (Brian McCoffey): You know, we weren't using - we weren't using any movement data in any of the work that we were doing that we were required by the animal disease traceability rules.

Man: Thank you.

Dr. (Liz Wagstrom): (Brian), this is (Liz) (unintelligible). Could you describe (unintelligible) the DRO process and what goes into that?

Dr. (Brian McCoffey): The DRO process, (Liz)? Is that what you were referring to?

Dr. (Liz Wagstrom): I was just wondering if you could give the committee a little background on that because I know we've put together answers to your questions from the pork industry, that's one of the things that we, you know, had discussed.

Dr. (Brian McCoffey): Yes, you bet. So what Dr. (unintelligible)'s referring to is when we receive results from those known laboratories - and this is what was occurring after the federal order.

So when we receive results from the laboratory we just get a positive result. And so to meet our case definition for a confirmed positive herd we need to know if that herd had clinical signs at the time that the samples were submitted.

And we have disease reporting officers, which are mostly our field level epidemiologists that then get those lab results and contact the submitter of those samples so - and the vast majority of cases that would be a swine practitioner and say, well, you submitted this sample from this particular premises, were there clinical signs? Can you confirm there were clinical signs or not at the time that that sample was submitted?

And so initially after the federal order that was an incredible amount of work, a lot of communication. We were having to contact extremely busy practitioners that were trying to actually control the disease and since that time I think we've done a much better job of streamlining that to some degree.

A lot of practices are actually doing this proactively where they send us lists or spreadsheets of the barns that they've sampled or the premises that they've sampled and whether there were clinical signs or not. So I think we've worked that out a little bit but it's still a little bit clumsy in coming back to confirm clinical signs or not.

Dr. (Liz Wagstrom): Thanks, (Brian).

Woman: Disease reporting officer.

(Wade Freeze): (Brian), this is (Wade Freeze). (Liz) and I sat in on a PED strategy meeting last week by teleconference and there's a number of people on that strategy group and probably one of the main concerns that they had is you people feel that you're getting enough information epidemiologically now that you can start shooting information back to the stakeholders out in the industry.

You know, we're doing a lot of diagnostics on a lot of (DRO)'s work but are we getting to the point where you can give us a lot more what you think happens and is going on?

Dr. (Brian McCoffey): So I think from our - I would say from the mandatory reporting standpoint what we're able to say is probably what I said in this presentation. I mean we can see what types of production units are being confirmed as positive more than others. I mean we can follow it through time. We can - you know, follow it through space.

But specific epidemiology about transmission between herds and that type of thing I think, you know, most of that type of work is probably being done at the university level. We are continuing to do some of those rapid response teams - rapid response team investigations.

I think a couple of them have been initiated in the last month or so to look at some interesting complexes that either hadn't been infected before or have rebreaks and go in there and look at them individually.

But you know, I'm not sure in the data that we've collected through a mandatory reporting mechanism there's too much to glean about, you know, inter-herd transmission mechanisms, that type of thing. It - we just didn't

collect probably the level of detail that epidemiologic information on each of those herds to really be able to do that.

(Wade Freeze): Okay, one last question then. How long in a situation like this will mandatory reporting go on? Is there a sunset to it when we decide it's going to be like TGE? Or do you envision in this situation it will continue for two or three more years?

Dr. (Brian McCoffey): I'm probably not the one that can answer that question. I think that there's going to be some discussion about that with PEG strategic task force at a meeting that's coming up in a week or so, maybe ten days or so.

But I think there'd definitely be some discussion about what the future looks like there. I know that from (AFIS)'s perspective - mandatory reporting has still some value for this but maybe even for some other reasons but I can't say one way or the other how much longer that would go on. It's really not something I can address.

(Wade Freeze): Okay.

Dr. (Liz Wagstrom): Hi, (Brian). It's (Liz) again. One more question that we've had some discussion around, you know, we've had a lot of challenges getting the laboratory reporting up and going and slowly mechanized.

I think we're only at four or five labs but do you feel as you guys are now having to start dealing with avian influenza that what was done for PEG to allow messaging has made it easier for avian influenza? Is - you know, are we - are what we - our lessons for learning for PEG being applied to other diseases and being upheld?

Dr. (Brian McCoffey): Yes, absolutely, (Liz). You know, I tried to sort of make that point during the - during my presentation. But you know, you hit it right on. I think we've created some data flow mechanisms that have, you know - because of PED that will definitely be leveraged for lots of other things.

I mean we were using messaging for other disease besides PED prior to PED. But I think - you know, needing to respond to PED has emphasized that messaging is really critical, it makes it a lot easier for - well, people resources don't need to be quite as many but we also have better data, the data's more accurate if you're just flowing it out of one system into another.

And so absolutely, (Liz), I think PED is really created some more robust systems on our side and I think emphasized to the laboratories and to industry partners that, you know, this messaging and the system that we can develop to be able to receive it and then move it between systems is incredibly valuable if you're going to respond quickly and accurately to a disease.

(David Smith): I've got a question. This is (David Smith), (Brian). A lot of money was spent on biosecurity support it looks like. And so I'm curious about what the experience has been in those herds.

Presumably you want to minimize losses within the affected herds and you want to minimize transmission to other herds. And so that's the reason for focusing on trying to control the - have a biosecurity plan in place.

So how effective has that been? Do you have any idea of what the experiences are in those herds? Are they just living with it or do they eliminate the virus? Or what happens?

Dr. (Brian McCoffey): Well, I'm going to speak to this very - in a very rudimentary fashion but if you have Dr. (Wagstrom) sitting there she'd be able to answer in a lot more detail.

I can say - I showed you our funding - the intimal funding of \$11 million towards biosecurity. As I mentioned, the industry indicated to us - and I heard this, you know, at a lot of meetings, we'd really prefer to see that money go towards diagnostics. We can handle the biosecurity. We know we need to make some changes. We know we need to make some fixes. You know, we'll do that. We'll pay for that.

And so I haven't seen a status of funds for this last month but we haven't spent but \$400,000 in biosecurity that has been requested from producers to the USDA out of that \$11 million. Because they are paying for that themselves, they are ramping up - I think there has been a significant ramp up and our funds have gone toward the diagnostic testing.

You know, again, I think a lot of funding from the industry towards learning how to do better biosecurity security has occurred. And I would assume that a lot of those things have been implemented by industry. But I don't know, (Liz), if you can answer that maybe a little bit more effectively than I did.

Dr. (Liz Wagstrom): I thought you did a great job, (Brian). I mean I know that we've had some issues. We don't have enough truck washes in the United States to wash every truck coming back from market.

So a lot of the breaks that I think we're seeing this winter - and I don't know if (Lane) can speak from his practice area, are because they're - you're taking the first cud of pigs out of a finisher, you've gone to the slaughter, you've tracked it back.

And those finishing breaks are not nearly as - I mean we're - pigs aren't dying, they're not a big - as serious as when we were in our (unintelligible) farms and so biosecurity and (unintelligible) farms has been incredibly tightened up. You know, they've removed products from their farms. They've started - you know, they fumigate things coming in.

We're filtering air coming into farms. So they've done a lot of the (unintelligible) farms and our vulnerability is still, you know, the lack of ability and to - we don't have enough trailers. We don't have enough truck washes. We have to wash trucks after every trip to market.

I don't know (Wayne) if you've got anything.

(Wayne): Well, you know, in the swine industry we've had a lot of people move over the last ten years to three site production or two site. And so consequently when a finisher site breaks it's all cleaned off and our odds of doing pretty well with that are much better than they would have been, say, ten, 15, 20 years ago.

And the other issue that comes up would be the (unintelligible) truck washes is quite an expense too. And some people are shortcutting because of the expense particularly when all the animals are moved off one site that are already positive.

So I think we're doing better. We've certainly seen less issues this winter than last. And - which is pretty much similar to TGE too. So I think it's kind of policing itself.

Man: The (unintelligible) units, are they able to eliminate the virus or is...

(Wayne): I think most sow units do a pretty good job but we'd still have some endemic situations. It's not as high endemic as I thought it was going to be. And that's probably due to the fact that little pigs are moved off the sow herd whereas 15, 20 years ago they were kept through the nursery stage.

Man: (Brian), this is (unintelligible). One small issue but an important one and the fullness of it would be more appropriate tomorrow in our national (unintelligible) outbreak but I did hear from some of my state colleagues when we did the federal order and made mandatory reporting, a lot of states, it was reportable.

And they were told that they had reported to their lab that they had met their requirements for state and federal. And I know at least initially there was a lack of fulfilling that requirement to the states. They didn't get the feedback and frankly put those people in violation of state laws.

So as we move to tomorrow, you know, I think it is good to report in one place. We need to look at the mechanisms that if one reporting worked for the federal that the immediate feedback to the state (unintelligible) official who has a state law that requires that in a specific time period is addressed in our procedures.

Woman: I think that's been the feedback we've gotten from the state that's in our group is that for a state veterinarian to have to go out and try to query (unintelligible) to find out what's going in and out of their state is not time efficient and it's cumbersome.

Man: Other questions for (Brian)? So RJ, what do you think - what do people think about break versus continuing or going into deliberations because there

obviously are some questions here that we need to deliberate on, talk about develop potential recommendation?

RJ Cabrera: And before we do that I just wanted to confirm whether or not (Annette Chows) has joined us? She has trouble connecting. So are we looking maybe for a quick break before we come back for our discussion, deliberation?

Man: Yes, no?

((Crosstalk))

RJ Cabrera: Hand up for break.

Man: All right, take a break on your own.

((Crosstalk))

Man: And are we shooting for lunch at noon? Okay.

RJ Cabrera: We're going to go - I'm sending out tweets keeping people up to date on real time input - specific time (unintelligible). So I'll send out - they already know we'll be picking up again after lunch so I'll let people know (unintelligible).

Man: So people are following us on Twitter?

RJ Cabrera: Yes. And that would be USDA (unintelligible).

((Crosstalk))

RJ Cabrera: That would be USDA (AFIS) and hashtag (unintelligible). We're pushing information out. We really don't know how many people.

Man: Yes.

RJ Cabrera: We'll get a report on that.

Man: All right.

RJ Cabrera: So we're looking at - in your folders, these are the documents I've sent you out, you know, over the last few weeks. We have specific questions for starting the discussion. So we can start there, (Don).

(Don): Sure. So I - you know, unless anybody has any other ideas you have the summary in front of you at the end of which are questions (unintelligible) deliberations pre - (unintelligible). They don't have to be limited at that. I mean if there are other areas that you want to provide feedback certainly the door is open for that.

But I would say why don't we start with that, those questions. And then go from there? So first one is provide feedback on the value of the (unintelligible) mandatory reporting requirements and the (unintelligible) that is shared with stakeholders from the data collected.

I mean I think I heard one comment on that already from (Lloyd), right. There was some feedback from the national assembly from state vets that there was information going in - as I understand it, there was information going into EMRS that maybe wasn't going to the state. Is that correct?

Man: They had reporting requirements for producers in that state (unintelligible). Federal government told them if they told their lab they fulfilled all their requirements they had federal and then nobody told the states. There was no feedback, period.

You can't - and there was really not preemption in that rule. However, we don't want to make people have to report twice so I think we need to work on a mechanism that there's active reporting, not the whole - if you look every hour you might can find it. And the system that has the state that vets can't get into.

Man: Okay.

Man: I'm not complaining, I didn't have the problem, but I'm here to represent.

Man: Yes.

Man: Fellow state veterinarians and that's exactly how I heard it.

Man: Okay, (unintelligible). State vets, they're not shy about letting their opinions be known are they.

Man: So I don't think they - you know, I think how to interpret that part as we move to tomorrow in full support of working with this national list, realizing that states may have additional requirements. But, you know, we certainly need streamlining. So yes, I think that's an important feedback to get and I think they've probably worked on that. We just need to keep that in mind.

Very often it's easy when you're in the heat of battle to forget the other requirements and people assume - I mean we had one in our state and even

our federal (unintelligible) didn't get the notice to pick it up. And then it was two months before I was told. And our law says 48 hours.

Man: Okay. That's good feedback.

Woman: So I think one of the things is our PD strategy group as we discussed this was - felt some of the value - some of the most valuable things has been the (unintelligible) putting premises IDs on laboratory submission forms so that if you were in a - in an outbreak situation where perhaps you could get ahead of an outbreak that was moving you had the premises information. You didn't have to go looking for a farm.

And so the question we asked - and this is more of a philosophical one maybe is that, you know, for current (unintelligible) we get statewide data back that says, you know, this week there were 26 cases in Iowa.

Somebody's trying to decide where in Iowa they want to put a group of pigs, whether they're coming out of a positive sow farm or a negative sow farm, they'd like to keep them negative. It's not granular enough to be able to make those kind of pig flow decisions but yet we - on the other hand as an industry, you know, we have a lot of blame for that because we want producer confidentiality.

And so you know, trying to figure out the value of the PINs is really important if we need to get ahead of the disease but can those PINs be utilized more to help us with those decisions?

I don't think anybody had a good answer but that was definitely something that was a lot of discussion on our call was trying to figure out how we're collecting the data, we're supportive of collecting the PINs, but how can we

better utilize that data without impacting producer confidentiality. So it's kind of a Catch-22 there but it's been an issue.

Man: How specific is it right now for the PIN? Is it down to the town level, county level?

Woman: Right now they're just reporting state level.

Man: State level.

Man: So I just have a question about premise IDs and these large swine operations. Is it one premise ID for maybe - for a physical location, physical unit? Or could it be statewide and it's one premise?

Woman: Well, it's been - it's varied and one of the things that we had - some of the initial DRO issues with where they - theoretically a premise is an epidemiologically distinct premise and you did have - especially when you got down in the southwest, you know, some operations that had one premise's ID for hundreds - dozens to hundreds of sites.

And so as the DRO reporting went, they were assigning new premises IDs to those sites. And while that's not a bad thing we - there was some question about it just getting done, you know, versus the producer asking for it. So I think we've worked through that but, you know, the premises are still varied from operation to operation, how truly distinct they are. And (Boyd), if you'd have any...

(Boyd): Yes, and you know, not having as much (unintelligible) dealing with it directly you get into the national traceability initiative, the definition that was used there was continuous party so we have one number if it's all one piece of

property or a cattle farm rollers, they may have pigs whereas in this case you need it down to the individual unit or even now they've been particularly saying I need to know which barn and not.

So there's a little bit of conflict we're having to work through there. The rule under traceability was one number for a particular - you know, the entryway, the location for one contiguous piece of operation property. And that's not down to sufficient detail for you.

Man: I believe in Minnesota we're working pretty hard at getting it down to every site and different finisher (unintelligible) premise ID for every site. So it varies by state I think probably.

(Boyd): But on a positive note, it has shown that it - the premise number is just an operational way of knowing exactly where you're talking about and is shown the value of why we needed premises numbers and this is being reflected not - (unintelligible) ourselves in the AI outbreak and the value of having those numbers that you can put the one number - when a (unintelligible) session comes in and you've got it.

But if it doesn't come in at the beginning it's really hard to match that back up later down the flow.

Woman: Yes, one of the other value propositions that we thought was good was overtime - as we've tried to get that site information - not only the premises ID but is that a breeding site? Is it a finisher? Is it a (unintelligible) finish, whatever? But in our call the laboratory diagnosticians on there did mention that that's not being - we have more unknowns now and that's a function of the messaging.

So before when they were putting it on spreadsheets they were doing some data quality control and actually going back to submission forms and even if - you know, even if it didn't say this site is a finisher if down below it said here are samples from (unintelligible), you knew - you could enter information.

And so I think that's - it's a value knowing what type of site it is. It's a challenge making sure that that's actually correctly entered and then messaged rather than having to be manually entered by the diagnostician.

(Boyd): My understanding is the messaging can accommodate it but it's not getting entered at the step that it would go through the messaging.

Man: You know, I think it's all a work in progress. You got Ohio state diagnostic lab that has a spot for the premise ID and (unintelligible) case and you have veterinarians that are busy that do a pretty good job and then you have a producers (unintelligible) sometimes.

But the producers are starting to swing over, this is going to take a while.

(Boyd): And your comments earlier about this benefiting (unintelligible) down the road, these problems did bring to light - the messaging is there. Their request to do it in the NOM was there all along. And there was shared reason - a lot of people had worked toward it and they hadn't implemented it.

One, because they didn't have systems they were using and I know (Sarah Tomlinson)'s working now to work out - this is pointed up to me, if you don't use something every week, every month then you're not going to be good at it. And we kind of had the messaging sitting aside for specific problems.

And I think - I'm speaking - I know their government coordinating council just met for the NOM, trying to find ways to use messaging in our everyday (unintelligible) communicating so that we're doing it all the time. And then when you - a disease outbreak comes up we're good at it because we've been practicing all the time.

And there - the messaging doesn't just need to be into EMRS. It can be back and forth to companies, systems. It can - we can use it in a lot of ways.

And I think that would address the problems you had. I expect that the NOM is now has made that people will no longer be a member if they can't message. Some of the major labs had drug their feet and gotten it done. And I think they were going to get tougher.

Man: Who is - sorry.

Man: What, you know, certainly confidentiality is a major issue for producers, right. And yet you know, you need that - you need to be able to have that information. Is the medical system a model here like the HIPAA laws? And you know, certain people have the ability to access your medical records but the public at large cannot.

Man: I think it varies state to state, doesn't it? I know that when - in my state when I was a state veterinarian there were certain diseases that, you know, where we would try to protect the confidentiality of the owner but sometime we would just be bluffing it because oftentimes the - whoever called up that wanted to know, let's say it was the media.

And we'd say, well, we're trying to protect the confidentiality of the owners. We're just releasing the town of the farm, not the name of the owner. But we -

I couldn't really do that legally in my state because if they'd have pressured me on it and put in a quick FOIA - Freedom of Information, we would have had to provide that.

And in a couple of instances we didn't but in one instance we did because we had an H5N2 outbreak in 2002 of a little duck farm. And we decided to release the - we talked to the owner about it. We said, you know, people are going to be asking. He said, I don't care, you know, tell them about it because they're going to find out anyway.

And so - but that - you know, depends upon the disease and I think the interesting discussion is going to be this afternoon too with the same issue with high path AI, which is a trans boundary disease, right? It's a foreign animal disease, yes?

So with this in 2013 but it wasn't made reportable for a little bit over a year because of some dicey reasons surrounding whether it was a foreign animal disease and so forth. But high path AI definitely is - foot and mouth disease definitely would.

I mean with foot and mouth disease I think it's - there's going to be no way to protect owner's confidentiality there. It's going to be out there, it's going to be out on the web.

Woman: Yes.

(Annette): This is (Annette) from California.

Man: (Annette).

(Annette): I just have a question maybe some of the people in the room. And I like (Don), we do the same thing. We protect confidentiality. It really depends on how much the lawyer is paid, how well we can do that. But we've even had the governor's weigh in and protect confidentiality.

So I'm not saying I disagree with protecting it but I'm wondering why is the industry so worried about confidentiality at the risk of spreading disease? And the reason I say that is, for example, we have the first commercial flock infected with high path AI.

And they announced who they were - they coordinated with us so that they could actually announce it because they wanted to tell their customers right off the bat. And they suffered no negative repercussions from it.

Dr. (Liz Wagstrom): (Annette), this is (Liz Wagstrom), just to kind of give you a little history back on May 16 or 14 or whatever it was in 2013, PED was unknown.

We had just lived through not too many years before the infamous pandemic that had been labeled as swine flu and watched the first Canadian farm that was publicly identified as having swine flu end up not being able to market animals, ended up having to kill all the animals on their farm with questions over whether they would be - get any indemnity.

And so I think that was - weighed heavy on a lot of people's mind. And I think that's why, you know, for tomorrow's discussion around emerging diseases response it's pretty hard to do surveillance and reporting if you don't know what response is going to be because that's the fearful thought.

And so when PED hit we didn't know if there'd be trade implications. We didn't know if there would be marketing implications. So unlike high path AI

where you have a response plan, you know what's going to happen, we did not know that in PED and I think it - we went through a lot of bumps in the road.

We were more fearful than we needed to be. We were more cautious than we needed to be. But it was because there was no known response plan.

(Annette): That was very helpful, I appreciate that, that makes all the sense in the world. We don't have a huge swine industry still so we can (unintelligible).

Woman: That kind of goes along with the question I had was would a national - would it have helped?

Dr. (Liz Wagstrom): I think in my opinion the list with - in conjunction with a response plan would help.

Woman: But that's the difference, not just a list but what the response would be to each of those scenarios.

Dr. (Liz Wagstrom): Yes.

Woman: Okay.

(Boyd): This is (Boyd), just to tag on to what (Don) says to (unintelligible)'s response, a question to - from (Giles) is - (Don)'s right. Basically you've got two levels of (unintelligible) what the federal government's going to do and you've got 50 different state laws to determine whether the state (unintelligible).

Again, that's from states with sunshine laws that every single thing is public and every little detail - I don't mean to throw (unintelligible). I think Florida

and Virginia, those are in my area, two of the states that (unintelligible) restricted.

And my particular state recently the industry and the legislature saw fit to (unintelligible) personal information and give it up to my discretion to release it. So we do not release unless someone wants to be self-identified.

But that's a state-by-state thing and I don't know how you're ever going to unify that, that's a really hard thing. We've spent years doing the bluff and getting by with it but now I have a law.

Man: Yes.

(Boyd): And I'm happy to have it. It allows me to release what I need to to protect public health and carry out my duties. But it doesn't require releasing.

(Don): And I tried to get a law in early 2000 and 01 or 02, something like that. And actually proposed language that we - that the department put into the legislature to protect medical test information from farmers. And that it got thrown out of the committee because of need or the request for transparency.

And so we - the way we got around it with one of our (unintelligible) was we got farmers to sign a request for confidentiality, similar to - New York did the same thing. And so when we did - this was surrounding (unintelligible) disease. So we got the farmers to sign a request that any testing that was done was confidential and that way it wasn't subject to FOIA. And so in that specific test program but it was just that program.

(Boyd): It is a challenge and the reason it went through in South Carolina was a response to an increase in FOIA request for CVI and (unintelligible), which

disclosed customer names, animal numbers. There's proprietary business information.

And so as the tradeoff of the very legitimate public right to know how I as a state veterinarian do my job and how I spend state funds, they have the right - they should actually be totally public as opposed to disclosing proprietary data from an individual farm. And hopefully we struck that balance but it is a hard sell.

Man: This is (unintelligible). You know, in a sense the public has a right to know if I have HIV or tuberculosis. But I assume they don't have the right to know because of HIPAA laws, right?

(Boyd): No. I do know - I joked, and this is (Boyd) again, in South Carolina we went - at the early parts of traceability efforts, you know, I had people who steadfastly in the volunteer program refused - they did not want to be registered.

They did not want us (unintelligible) and those same people called up and screamed that their neighbor had a problem and how dare I not have told them about it. I said, well, even if I was telling about your neighbor I wouldn't have known you were there. You didn't register. How could I tell you?

Man: There you go.

(Boyd): But so I think individual people struggle with the same thing, they want their privacy but they don't want anyone else's privacy.

(Wayne): This is (Wayne). I think one of the main reasons swine people probably pulled back initially is that most of the farms are moving livestock all the time. You

(unintelligible) one place, they're born on one place and transported to other places. And one of the kneejerk reactions is if we can't move them then we've got a real problem here.

And where can we move them? And how long is it going to take? And you've got people who've got to move pigs every week. And these decisions take a month or two to - by state and federal authorities to decide on what they're going to do.

In this case, it - we got through it pretty well. But I think the first thing as a financial and can I - and it's financial, how is it affecting my unit? And what can I legally do here? And so that gets back to confidentiality. Once you figure it out then it's not so bad after all.

(Boyd): (Liz), and I heard from a major producer in my area - and I think maybe I'm only asking because this might be part of the answer of how you worked it out. I think privately the swine industry has gotten together and developed their own private internal system to share the information.

He showed me on his phone that he could pull every diagnosis hourly almost in the area. I thought that was a really good thing, that was a way to not put me in the position of having to tell them.

Dr. (Liz Wagstrom): And that has varied state by state. I think you're probably talking North Carolina, they did a great job. Indiana did a great job. Other states, not so much. And so...

(Boyd): That was not nationwide.

Dr. (Liz Wagstrom): It was not nationwide and sometimes it was systems that had neighboring farms would share with each other but not necessarily a statewide sharing. So it really varies. It would have been great if we could have all done what North Carolina did.

Man: Is the USDA current data confidential? Like the - you know, the (MAC) and everything, the 2300 and 85 - well, since June 5 that the federal law went into effect, if I am a reporter in Iowa and I want to...

(Boyd): Public website, it's published I'm pretty sure.

Man: But by state or by farm?

(Boyd): By state.

Man: Okay, so it is confidential or they're just not choosing to publish it? What - I'm just asking. I don't know. I mean is it...

Dr. (Liz Wagstrom): (Brian), are you still on?

Dr. (Brian McCoffey): Yes, I am.

(Liz): Can you address that?

(Brian): I can try. Um, so certainly we've been afforded data at the premises level. So we have premises location numbers as part of our mandatory reporting through the federal order.

This was certainly a question asked by industry partners at the very beginning and when we started talking about a federal order so you're going to be able to protect that.

What I can say is what the department has put forward is we will do everything in our legal authorities to protect that information. But we can't guarantee that if someone were to take us to court and get a hold of premises identification numbers that we would necessarily win. That was from our General Counsel.

So yes we're going to protect all of that information to the greatest degree that we can and have done so far. So...

(Don): So there's a difference between a FOIA request and court. So if somebody gave - this is (Don) if somebody put in a FOIA request to you for all the positive premises in Iowa you would deny that request right now?

(Brian): I can't say that we would deny it (Don) I really can't.

I think we would do whatever we could to redact any of the personal identification number or premises identification number information, submitter information -- any of that.

That's my understanding is what we've been able to say is we will do everything we can to protect that from a FOIA request.

But I don't speak for the FOIA office (Don) so, I can't say for sure one way or the other.

(Don): No I understand but, I mean, I've dealt with FOIA requests before and they can be extremely problematic and cumbersome.

And so but to me there was a big difference between FOIA requests and somebody going to court because when we implemented our system of farmers signing a request for confidentiality then that legally we were told in our state we did not have to provide that information if we had a FOIA request.

But somebody could still go to court and sue us over that information. So whereas, you know, it was - you know, that was just a specific case. So that's why I asked that question.

Interesting.

(Liz): Well I can tell you what, we were told when we got our PIN number was that it's just a number. Somebody might get the data that shows this number but they were not ever to be able to get a hold of our data the tied us to that number.

And that's what, you know, that was what we were told that when we got a PIN number. They might get a PIN number but they don't know what's that ties it to.

Man: No.

(Liz): And if that's incorrect I'm not happy.

Man: Do you remember when Sony got hacked?

(Liz): You mean every week? Well I understand what you're saying.

Man: Yes.

(Don): Well I guess the, you know, this is all apropos of the question which is providing feedback on the value of the federal mandatory reporting requirements and the information that is shared with the stakeholders from the data collected because how much data are the stakeholders willing to give up in order to get more transparency?

And it seems like right now it's just at the state level which is the, you know, the least amount of detail that you can have.

And I don't - is there - is the industry clamoring for more granularity in that or is that okay for now with PED?

(Liz): You know, I think with PED were probably to a point as (Brian) said we're endemic. And so those risk decisions aren't as important for big movements. In the future it might be.

The other question I think I would throw out or for feedback was (Brian) showed the checkbox for health management programs or report.

That was a that was a - that was designed by industry and industry veterinarians to fulfill a requirement to have a (unintelligible) health management program that was not going to be overly burdensome to actually write one and develop one and have, you know, have to submit one for every positive farm.

And so the format it is in now came from industry. I mean there is - I can't point fingers at anybody else.

What we found out though is it was just an exercise and it really has probably provided very little value as far as there's no ability to collect risk factor data.

There's no - I mean theirs - I don't know that anybody's analyzing the forms because there's not a lot of data to get out of it to analyze.

So I think for future value I think the question would be what would be the right data to collect that wouldn't be overly burdensome that we would have confidence that somebody, you know, at (SEA) would be looking at that data, analyzing it for risk factors, trying to get value out of it?

And so I think that's an area of opportunity that the form right now was just put in as a paperwork exercise at our request.

But, you know, what could have been done better, differently, you know? And I don't know if that's a question or a statement but it's definitely I think an area of opportunity.

I don't know (Brian) if you have ideas on that or not but...

(Brian): (Lois) I think you, you know, we were working very hard as you say to not create a lot of extra burden on either producers or veterinarians that were actually on the ground trying to deal with the disease.

And so, you know, the checkbox list was I think was, you know, said it pretty accurately. I mean we worked pretty hard with the industry to make that as streamlined as possible.

But we have been asked of okay so what advise security efforts have worked the best and which have it? And we don't know that based on that check the box list.

And so I think as Liz pointed out in the future it would be great if there was a little bit more detailed to that so that we could answer I think a previous question that I received well so what all have you learned?

Well from the day that we have we probably can't see too much about an insured transmission and its mitigation.

But if we had a lot of information on the bio security practices on let's say even confirmed infected or confirmed premises and presumptive positive premises if we were to be even now examining you the difference between those two we might be able to glean something if we had some more specific FE information or bio security practice information.

So I think that (Liz) is right. In the future it would be good if we could collect a little bit more specificity around that.

And I think that's not really - I mean that's good for the industry. I mean does APHIS need to know that stuff? Well I, you know, we're really wanted to help the industry control so it's really benefits the industry pretty directly.

(Don): Any other input on that first topic? (Dell)?

(Dell): One thought. Okay we've been discussing this confidentiality terms of a FOIA request but not in terms of within the system who has the right to have that detail information?

That's another (unintelligible).

(Don): I would guess state animal health officials number one, federal of course, labs but who else?

Man: And then it's a good question. It comes down to labs if they were doing research would they be given anybody other than their own information? Likely it would have been given all other labs information.

So I'm sure there - that's a good question (Dell) but I don't know the answer to it. I'm sure there is a hierarchy of who at what level and for what purpose they can get but I don't know the answer to it.

(Judith): This is (Judith). Trying to keep track of this conversation by phone is a little difficult so forgive me if some of this has been covered and I missed it.

But, you know, our stakeholders generally come from the perspective of they like seeing things at the state level first and then as needed, you know, federal access to it.

And from what I was - I've been able to capture in this conversation about the problems that have arisen, you know, through the PDV outbreak and addressing it it's not clear to me that a federal reporting requirement really solves it as much as there are some issues with just literally how the reporting happens that we may be able to address at the state level with some provisions then for federal access to the information.

And I guess I'm just I'm not clear on really how the federal reporting list solves some of the issues that I've been hearing raised in this conversation.

(Don): Well we'll certainly be able to have more discussion on that when we talk about the list too.

Okay I'm just trying to, you know, see if there are - I've been - I've kind of starred a couple of possible recommendations on my notes. And you know, maybe you all have also.

But why don't we move on to the...

((Crosstalk))

Go ahead (David).

(Dave Smith): All right. This is (David Smith). I - so it's one thing to initiate a mandatory reporting program but then there must be some point when you decide that you don't need it any longer.

So if these are endemic viruses when do you say well we no longer need to report it as, you know, we've got DG, rotavirus, and we've got all these other things that we're not mandatorily reporting, when do you stop?

(Don): Yes. I just starred that too as a common recommendation. Yes good one. And somebody brought that up earlier when - too. Yes good to reiterate that.

Woman: And we'll remember that.

(Don): Yes we will. So why don't we talk a little bit about the value of USDA support and diagnostic testing for SECD?

Woman: So always still in a vacuum here.

(Don): Yes right.

(Don): Right.

Woman: One other thing our strategic group had said was that the most important things come out of this program was the diagnostic testing.

And one of the things that was especially good is that it allowed the farms to do excessive testing so that they could test to determine when they were going negative.

And I think we've figured it out at one time, you know, that was \$2000 or 3000 worth of testing if you are going to go do your testing enough samples over enough weeks to truly determine that you were a negative cell farm anyway.

So that was a big issue with them as far as real value to the point where we said, you know, is it worth continuing the reporting if you keep getting the diagnostic testing?

And I think that that was the value of the diagnostic testing was important enough to them that they, you know, that even though the reporting might not have a lot of value anymore the diagnostic testing surely did.

(Don): So was the cost of the diagnostic testing underwritten by USDA?

(Liz): Yes the labs...

(Don): It was?

(Liz): ...actually bill USDA and they don't even bill the veterinarian.

You're framing that as a positive? It was a huge positive. It had a lot of value. And it provided a lot of information that (unintelligible) in the field where through the ongoing, you know, biweekly testing that a lot of herds that were using different protocols.

I think you even have some evidence in the field of maybe what's worked to help herds go negative more quickly. You've definitely been able to establish that you have a constant that a herd truly is negative if they're not endemic anymore or chronic.

It provided a lot of help to producers in those efforts. I don't know (Wayne) if you want to add anything?

(Wayne): Right. No I think it's probably the key things that gave state labs and federal authorities the information.

It's bad enough when you've got pretty good losses going on and start racking up a big diagnostics bill.

And it softened it. And it helped people get behind programs. I think it was a good move.

(Liz): Good.

Man: And also its value was not emphasized how they leveraged it, no premise number, no pay.

(Liz): Exactly. Exactly and that really helped getting the (unintelligible) idea (unintelligible).

((Crosstalk))

(Liz): The other...

Man: If it was valuable they would have (complied).

(Liz): Right. The other thing is I think that huge quantity of testing, you know, where you're getting thousands of samples in the labs every week probably was a good impetus for the labs to have to start electronically messaging because putting all those on a spreadsheet is a lot more difficult.

You know, so that was probably another positive that came out of it.

(Don): Good. I mean the other question there would be similar to the reporting question is what's the endpoint, you know, when we seen it with brucellosis that, you know, support for a testing has tapered off, reduced and instead of USDA supporting testing in individual states that go to a central collecting point, you know, or central lab or whatever now.

And so I mean, at some point you've got to say okay enough is enough. But same thing with pseudo-rabies I think was probably, you know, funding was reduced for that as you get control of it so but overall positive comments on that.

(Annette): You know, I - this is (Annette). One of my stakeholders expressed with regard to the lab to the (nom) there was - while the support was good and they felt

like that helped increase information relative to disease prevalence there was (unintelligible) was that there was really never standards developed so that you know you get the same result in every (nom) lab but there usually are with laboratory tests.

So their comment was that they felt maybe more leadership on standardization for the testing protocols unintelligible viruses would have been beneficial.

(Don): Okay thanks (Annette).

Man: Yes. I do think the messaging accommodates a description of the type of testing each lab uses. So the messaging would accommodate that but maybe they didn't have the descriptors defined.

(Annette): But there's one thing that describes the processes and another thing to coordinate and have consensus on the best method for detecting the disease so that no matter what lab a producer took a sample to they were going to get the same result.

Man: Yes but that requires us to tell what...

(Annette): They may have gotten the same result using different methods but that wasn't the concern that was expressed to me. And this is in an area I'm just repeating what one of my stakeholders said.

Man: The message includes the method.

(Liz): Yes. But I mean I think what she's saying is perhaps different PCR tests were being used in different labs and thus you were getting different results. So...

Man: Yes.

(Liz): ...and might get a positive in South Dakota and a negative in Iowa or vice versa.

Man: But the message is supposed to go down to that level and include those different probes...

((Crosstalk))

(Liz): Oh, okay got you.

Man: The guy who does those messages works for me and I don't know...

(Liz): Okay no, I understand. I thought you were just saying messages would go as far as saying it was a PCR?

Man: No. It describes...

(Liz): Perfect.

Man: ...all the way down to...

(Liz): Okay I understand. Okay cool.

(Annette): (Unintelligible) that's good because then you can gather data to try and - but that's still not a case controlled study. And maybe there was one but, I'm not aware of a case control study to determine which method had the highest sensitivity and specificity and then everybody use that one.

And I know there's different in different (unintelligible). You know, sometimes you can use ten different methods and you're going to have pretty much the same sensitivity and specificity even with ten different methods so it may be a moot point.

But the comment was normally the idea of the (nom) is the consensus of laboratories that are receiving funding from the USDA to some extent, not much on, you know, consistency of methodology so that they're basically one big lab system.

Man: Yes. And the challenge of this would show the need for other emerging diseases. These tests were being developed to simultaneously with this testing program new methodologies and new probes and so...

(Annette): Right. But that's all...

Man: ...(unintelligible) messaging for each new method and that was being done.

So in this case it could help inform what you just talked about knowing those methodologies it provides a database to help decide what the best test would be which maybe they're getting to the point of being able to make that recommendation or (unintelligible).

(Annette): Yes exactly. And along those comments since you mentioned that, you know, a lot of times there's a - an ethics - and parent ethic -- it may or may not be true -- that within USDA there's only certain laboratories that can develop certain new methods.

But there's a lot of expertise with in the (nom). And so there could have been, again I'm not sure of the facts behind this, but there could have been, you

know, four or five different laboratories that really push the envelope on improving methodology.

So that kind of goes - those are two comments they're a little bit dichotomous but it has to do with the phase of the outbreak.

You know, the theory behind the (nom) is that all the partner labs work together to improve the delivery of services to (brasers) and they're all equal partners.

And then at some point hopefully, you know, the best method would emerge and hopefully the lab can move in that direction. I understand that usually people like to have the method they're used to go but (unintelligible).

(Dave Smith): (David) this is (David Smith). I just had a question and somebody probably knows this. But the funding that was used for the diagnostic testing was it to achieve a particular objective or was it just to submit samples, we'll pay for it or how was it structured?

You know, because sometimes you'll get into situations I saw with (Yoni)'s disease where there was money to do testing. It wasn't spent well.

And so I think, you know, you can have some but if there's a really useful program answers questions and helps producers and you can have other ones where you just spend a lot of money because it was available.

Woman: Yes.

(Dave Smith): Does anybody know how this was handled?

Woman: That's right.

(Dave Smith): (Brian) are you the one that knows?

(Brian): Sure. I'd be happy to answer that. (David) I don't think we had the specific goals around the diagnostic testing other than it was to support getting the data on positive farms.

But I think the outcome has been extremely well explained by Dr. (Wagstrom). You know, I think the supportive diagnostic testing has probably been, you know, USDA's biggest role in getting us to some level of control of the PED and Delta Coronavirus in the US because of all the things (Liz) said.

I mean all the testing has allowed those practitioners and producers to understand, you know, how do we maintain immunity, you know, when do we institute this type of feedback of this type of vaccination, when do we close herds, you know, all of that has been supported by the diagnostic testing in learning the best ways to control.

So, you know, I think going into it I don't think we had probably established the goal of our money for diagnostic testing to do that but it has.

And the diagnostic testing has given us all of the data to be able to report, you know, our current status. So I think that's probably the best way I could answer that.

(Liz): That's a great segue to the next question I think.

(Don): Yes.

(Cindy): (Don) could I ask one more question?

(Don): Yes (Cindy), sure.

(Cindy): So (Brian) when you went through your presentation I wrote down that you said there was \$26.1 million allocated.

And then when I added up the amounts I did not come to the 26.1 so I might have missed something along the way but I can't account for \$7 million.

(Brian): You can't account for \$7 million. I probably left out a couple of categories that - in that funding. So I - yes, sorry about that. I'm not sure what was missing.

I know bio security was one big piece, diagnostic testing, sequencing cooperative agreements. I don't think I had anything in there on cooperative agreements did I?

(Cindy): No you did not.

(Don): No.

(Cindy): Right.

(Brian): That's probably where the bulk of that \$7 million is in cooperative agreements with the states.

(Cindy): Okay.

(Don): All right. So the third and probably final question is provide guidance on the future of SBBD control and the role of USDA in those efforts?

Continue funding, diagnostic tests.

(Liz): Yes, I think yes I'm looking at all the points our group came up with. And I think that , you know, you look at what's happening with (unintelligible) and does that serve almost as a tabletop exercise for a foreign animal disease and so what can we learn from it?

And I think one of the things that we all get stuck into and we do every outbreak I think is thinking (unintelligible) FAIs.

But you looked at responding and you're out there whether it's killing birds, you're trying to stop movement or whatever and are you truly having time to do the epidemiology?

Are you collecting the data for the upbeat? Are you trying to figure out your risk factors? Are you trying to get ahead of this through solid investigational work as well as your response?

And that is something I think that as far as future of SEC control or any disease control is really important.

And then for us the second lesson that I think we're looking at right now is that even though PED is probably no longer a crisis in our industry I mean it's starting to get under control and we're watching USDA have to fight a crisis within (FAI) I think that - and I don't know if this - how this committee could recommend it.

But we - it's clear that resources are very tight both especially people resources but perhaps other resources to be able to handle multiple disease outbreaks at one time.

And so I think that is another concern that people have to, you know, we have to express as a committee is that, you know, this has been a demonstration of how limited APHIS resources actually are.

(Dave Smith): So this is (David Smith). Given that resources are limited and you're trying to make these decisions about where to invest in a crisis situation it seems to me that early on in an outbreak investigation of course the point is to understand what's going on - what's the agent, where's it at and become strategic about are we trying to eradicate this?

Are we just following along? Is this just an academic exercise of describing this outbreak that later on we can talk about?

So, you know, I think it's a crucial thing to decide how this money gets spent so that you get the most bang for the buck I guess.

And I'm not sure. It seems like we learned something from this outbreak but we didn't stop it and we didn't eliminate it. And in fact there was even lot of political lessons I think that we learn from the thing.

So hopefully going forward we have some better understanding of how to spend the money appropriately. It is an active table exercise I think.

(Wayne): I agree with (David) wholeheartedly with what he said. And I think - this is (Wayne). I think that within a reasonable period of time we should decide what we're going to do with this disease.

I think the USDA whoever needs to decide what they're going to do with it.
And if they're not going to eradicate it may be that coincides with less testing.

But if we're going to eradicate it then we're probably going to have to keep testing. But at a certain point you've got to decide what you're going to do with the disease.

(Dave Smith): Better than I did. That's what I meant, yes.

(Wayne): Yes.

Woman: And I'm sure as you're talking what are you thinking is a reasonable timeframe? What's in your head?

(Wayne): Well I think for every, you know, foot and mouth disease would be pretty you got to get rid of it but on this one here I think within I think within two to three years you need to decide. We've been through two years now.

A right group of people's got to get together that understand it and say what are the odds and if the odds aren't very good then live with it.

And is not, you know, we've got to go over the acute part like (unintelligible) I have. I've got some questions on that this afternoon.

But I don't - I tend to think with this disease we're going to live with it. And if are going to live with do it -then live with it then that - then you handle the diagnostics (unintelligible).

(Liz): But without the federal order and the information that came in because of that would you feel like you be in a position to give guidance, eradication versus...

(Wayne): Well I don't know if I am but I think there's people that are pretty qualified to at this point in time.

(Liz): Sorry. But without that information that came with the federal order it came because of the federal order. I think that group of people would have been able - would be able to know which direction to go?

(Wayne): Probably not.

(Dave Smith): So this is (David Smith) and I think that's the point is that federal order allowed us to have a lot better understanding of what was going on.

It was critical to get the quality of the data. And so I think it's well you need to do that quickly. And then you need to decide so what do we know about this and what is our game plan then to spend the money accordingly.

(Liz): And (David) I think you made a great point there. And there's a lot of political wrangling and, you know, we can go like this and point fingers at each other.

But in retrospect, you know, they probably should have slapped a federal order on it on of May 2013 instead of June 2014 and we would have been - I don't know that we would have stopped the outbreak but we would have had better information sooner.

So I don't know if you should write this down...

((Crosstalk))

(Dell): So this is (Dell). Did I hear back earlier in the conversation somewhere that in this list of emerging diseases there'll be an individual response plan for each one?

Woman: That was suggested.

Man: It was suggested but that is not part of what I read.

(Liz): We'll know more about that tomorrow morning.

Man: Yes.

(Liz): And really be able to get that.

(Don): (Unintelligible) (John)?

Dr. (John Fisher): This is (John Fisher). And one aspect I haven't heard mentioned and it was determined that eradication would be the path that would be chosen.

Have there been any consideration given potentially to feral swine as a reservoir of the disease? And I say that because they're reservoir to program diseases currently.

And I've seen photographs of some paths that are very well worn by feral swine to the feed storage sites on the high density swine production areas.

So for the future of control of this disease I just wonder if that's something that's been taken into consideration and examined at all.

(Liz): (Brian) still on the phone?

(Don): Good comment.

(Liz): (Brian) do you...

(Don): Probably not yet.

(Brian): Well hi Dr. (Fisher). So the only comment I guess I could make to that, I don't think we've in the future control - and I put program sort of in air quotes whatever we determine to do in the future.

I don't know that we specifically talked about feral swine. We did as part of our root cause investigations the very small study of a retrospective samples that had been collected of feral swine in some higher density areas where we knew we had PED. It was like I said a pretty small study.

We didn't find any positives but again small study and I think you're right just like with brucellosis and pseudorabies even swine influenza, you know, other things we have to keep in mind that incredibly large populations of feral swine that are, you know, in some places contacting commercial operations to some degree.

So I would agree whatever that always has to be in our back in our mind is that substantial population that could be a reservoir for these diseases.

Man: Thanks (Brian). I think that's really important. I have been involved in the swine (saw) herd system for ten years.

And when (Pers) was kicking up it was brought up that it was feral swine in nocturnal period of times would be zipping around the buildings.

And so they did testing. And for (Pers) it was negative. And I said you better check them for pseudorabies and everything else you can.

But it's a concern, you know, and it's a sport down in Texas. And but there's a lot - look it I heard one time there may be 2 million to 3 million of them running around.

Man: I'm not sure of the numbers but somewhere in the neighbor of 35 or 36 states have...

Man: Yes.

Man: ...establish populations.

Man: (Steve) have you heard anything?

Man: Quite large.

(Stacy): I have a question. This is (Stacy).

(Don): Go ahead.

(Stacy): If we decide to live with SECD what would that mean? Like what, you know, like what would we do - how would we live with it? Like how would that impact the - I guess piglets especially?

(Wayne): Well if you go back to the TG days and since I have white hair I've been around long enough (unintelligible) to watch it, you know, it seems to cycle. And I remember Dr. (Al Langeman) said it seems like it's on the seven year cycle. And so there would be death losses and then it would kind of quiet down.

In some swine dense areas it happened sooner than every seven years. But over time from the 70s to 80s so now it's decreased considerably.

So it - but it hasn't gone away. So when it breaks there's a problem with little pigs.

(Liz): You know, and I think the SECD we're living with now this year has been so much more focused on the finisher herds and grow finished that there's very little death loss.

And so it's more - you know, they'll slow for a while, they might not eat as well but there's very little death loss.

So if we can focus on keeping - or keeping the sow herds clean it's going to minimize losses significantly.

(Wayne): Liz is exactly right, brought 2400 pigs in that were weaned at on 21 days of age and they came in and it was just everywhere.

Within seven days they were almost all cleaned up. Once you got them off of sows away from the source and got them a different feed it was amazing. I mean we're talking about 12 pound pigs and it just dried up.

So if it can clean up pretty fast. As you said about that huge disease out in the finish herds an aggravation more than anything.

Man: This board's (unintelligible) might be a question, makes another question for me that may or may not have an answer to but it made me think of all the considerations to go in.

If we were able to eradicate it are there management expenses that would be a savings to the industry or have these processes been put in place or have they plugged holes in bio security to remain anyway to protect us for another (unintelligible)?

Man: We don't know that.

Man: I don't know the answer but let me realize how complex the answer to the question of whether you're (unintelligible) or not.

(Wayne): Well there was a veterinarian's pretty good at diagnostics in China, US veterinarian that's been over there quite a while.

And he had told people three or four years ago and it's not if you're going to get, it's when you're going to get it. So now you clean up and everything and are we going to get it back again, you know?

Man: Which is another factor.

(Wayne): Yes. I mean it's just tough.

(Don): Other input?

(Liz): Yes. I think one of the other things our group had mentioned -- and (Brian) is very aware of these -- is there other information systems that are starting to collect data.

And so we've got this voluntary system with the University of Minnesota run through Bob Morrison called the Swine House Monitoring System.

The core check off has put up \$15 million to do a Swine Health information Center that would be collecting data voluntarily. It wouldn't be a mandatory program.

And so how can I think for the future, you know, look at USDA collaborating with some of those other information systems?

They can - how do you get value out of either a reporting program or do you need a reporting program anymore if you can - can you get the information you need out of those voluntary systems?

So I don't know that it's a take-home message but it's like one of those thoughts to say let's keep looking for ways to leverage, you know, the resources that are out there.

The other thing I'm looking through my notes these guys when we get them asking talking about it we had a good hour conversation with the strategy group about it.

(Brian) had mentioned that the rapid response teams that had been sent out and that USDA through cooperative agreements had support it.

And so the hope is that as part of that getting ahead of the situation and future disease situations you can have those response teams ready to go and up and going that when something happens that they've got a standardized format of things they're looking at questions they're asking, somebody ready to look at that data and so you can conduct your good epidemiology and also perhaps trace back to source rather than focusing on response.

So felt that rapid response teams had value. I think, you know, again we may have come in a little too late in the PED situation with them.

But it, you know, another lesson learned. Let's, you know, maximize the potential that they have for future situations.

(Don): So who's looking at besides this committee who is looking at kind of the big picture of this? You know, I know that our board is - the (Corp) Board's doing it and looking at animal health as the swine diseases committee AAVLDs looking at the lab end of it.

But is there a strategy group this looking at, you know, five years down the road with this disease? As, you know, (Wayne) said are we going to live with it, are we going to eradicate it?

Who's looking at that? Who is making those decisions? And does this group have a role in pushing some idea forward?

(Brian): Dr. (Hornick) this is (Brian). So (Liz) has made mention a couple of times I think I made mention of it as well to a PED strategic task force that put together fairly quickly after first detection.

And the folks that are on the strategic task force included a lot of industry folks, laboratory folks state veterinarians, USDA folks.

So I think that at that particular group is pretty well-suited to, you know, developing strategies both, you know, short term, midterm, long term strategies. And that's what we've been doing since, you know, June of 2013.

You know, some of the short-term work is the very specific research around bio security practices around immunity.

Midterm would be these FD studies that I think (Liz) is referring to. And then long term are things like okay can control versus elimination are we ready to step off, you know, that ledge and make an attempt at that and what does that look like?

So those are the discussions that have happened at that strategic task force level. And I know from the USDA's perspective, you know, we've been involved in that since the very beginning.

Just really appreciate, you know, full on partners in that group. And we bring back in decisions or at least ideas from that group to the USDA, you know, bigger APHIS level folks to bring that forward as to funding that might be needed, what policy development might be needed, et cetera.

So that's at least in my mind seems to be working. It has worked all along and it still seems to be working.

So I don't know if another group is necessary but I think that that strategic task force is a fantastic model actually for how we might want to do this with other industries or for other disease issues.

(Don): So that's happening, good.

(Liz): I think we've got the meeting May 13 that a lot of this discussion around the future and control versus elimination versus endemic or will be under discussion.

And it's been a huge commitment. I daresay the people, you know, within your FDA we have a 6:30 AM every Friday morning conference call which means it's 5:30 AM (Brian)'s time.

And, you know, the group for the last two years has had a conference call virtually every Friday morning. And it's been very, very helpful.

(Wayne): And along with that I just caught one of them last Friday with (Liz) but really all the species should have their strategic task force groups going at some point in time. You know, it's bovine with (unintelligible) BFC or maybe we're going to have something else come up from Mexico and what about the sheep industry?

You know, obviously (Adians)'s in pretty good shape but everyone should have their task force.

You don't have to wait till you get the problem to get it.

(Dave Smith): So this is (David Smith). Just my comment would be that to answer that third question well do we really need to know what that taskforce is thinking?

It might be just that our comment would be that well you need to have a task force and it's a good thing that there is one.

And, you know, either follow the recommendation. But it seems like that's critical information to decide how we would recommend moving forward.

(Liz): So your comment is need to know more about what that current strategic...

(Dave Smith): Well yes if there's a - so the question is, you know, what for our opinion about the future control of these things how do we advise USDA about the control of these viruses?

And well there's a task force that working on that. and that's so we either trust the task force or we ask for what the task force knows and is considering.

(Liz): And I think one of the things we've struggled with all along and we've struggled with last year when the reporting program came in is clearly defining the objectives to what was the objective of reporting?

And so I think it's up to the task force and then to come back to bigger industry organizations whether it's our board of directors or our work form delegate is here are the objectives of what we did by state and then get broader industry buy-in. But without clearly defined objectives it's hard to put together a program to do anything.

(Wayne): And I think (Liz) had three pages typed up from the task force that she presented as myself and we - you sort of know what they thinking right down the line (sic) having been there all the time.

But we should glean off of them particularly if we're going into executor's line.

(Don): All right, more discussion? So we've got, you know, have got some good ideas on some recommendations on this topic.

(Brian) thanks a lot for your presentation and thanks for hanging with us for the question and answer and we appreciate your - everything you do.

(Brian): All right, thanks, my pleasure.

(Liz): Thanks (Brian).

So I've captured some of your comments and some of what I've seen (unintelligible)...

(Don): All right.

(Liz): ...stated recommendations that we might be able to revisit tomorrow. So that's how we'll do this.

(Don): Yes.

(Liz): I thought they would be good...

(Don): Yes.

(Liz): ...solid news coming forward.

(Don): Good.

(Liz): Now we don't have a dedicated note taker so I (unintelligible). I'm going to try and...

(Don): Good, yes. I think...

(Liz): Okay?

(Don): I think I've been taking notes too so...

(Liz): Okay good.

(Don): All right.

(Liz): So...

(Don): So...

(Liz): ...we're going to break for lunch now...

(Don): Yes.

(Liz): ...and of course we're limited unless you have transportation to the (Malbeak) Restaurant. I'm going to give everybody an hour, plan to be back here by 1"30 and be up and going by 1:45 for the foot and mouth disease vaccine.

(Don): All right. That sounds good.

(Liz): And that will be in (unintelligible).

(Don): All right.

((Crosstalk))

Woman: Is it safe to leave our computers in here?

(Liz): It is safe to leave your stuff here. I (unintelligible) so if you'd like to leave your things (unintelligible).

Thank you (unintelligible). We are taking an hour and 15 break.

Coordinator: All right thank you.

(Liz): We'll be back up by 1:30.

Coordinator: All right. I'll put some hold music for those who may call in a little early when they come back.

(Liz): Thank you very much.

Coordinator: You're welcome.

(Don): So we're going to get going again. Is everybody in the room everybody online? Our tag team presentations that begin the afternoon is Dr. John Zach from USDA Veterinary Services and Dr. Jim Roth from Iowa State right?

Man: Right.

(Don): Okay. So I believe that Dr. Zack are you going first John?

Dr. John Zack: Yes. We're going to just...

(Don): Going to go back and forth?

Dr. John Zack: Yes.

(Don): All right good.

Dr. John Zack: When there's a hard question will...

(Don): Give it to Jim?

Dr. John Zack: ...let Jim answer it.

(Don): Yes.

Dr. John Zack: So I, you know, last iteration version of this committee got a briefing. I don't know how many people were there for that.

((Crosstalk))

Dr. John Zack: (unintelligible) like...

(Don): Yes.

Dr. John Zack: Ad then over the last like five, seven years we've begun to modernize, you know, response policy to foreign animal diseases including FMD.

And we're at the point now where we need to modernize capabilities, you know, not just response policies.

The big take-home message was coming out of the UK experience well how long can you cling to a stamping out policy?

You know, what are your triggers by state, by industry that you would move to a different policy? Oh by the way so capabilities information age capabilities are hard if you don't have.

I think that's the biggest bottom line is one thing to say we're going to do this but if you have to actually either have industry folks equipped to do the job or government folks equipped to do the job or private-sector contractors to do the job so I guess the analogy would be you need 15 fighter planes you just don't build them overnight.

If you need a capability that is hard to procure without lead time, you know, it is what it is.

So I think the first part of this is probably redundant for a lot of you but it kind of sets the stage give everybody a common operating picture of what we're talking about.

So that's the world and that's where FMD is projected to be.

Man: Right.

Dr. John Zack: And, you know, you probably know the history better than me but we haven't had a year since, you know, what eight, nine years?

It's a long time to be lucky. And it's always good to be lucky. But when your luck runs out then you're back to capability how do you handle the problem?

You know, really we - I think smartly over the years we've looked at FMD as not just being a United States problem but it would be a North America problem.

You know, we do a lot of commerce with live animals and products with, you know, Canada and Mexico.

The thing that's really unique about the United States is, you know, we talk about in North America but when you look at the actual animal inventories, you know, you don't have to be prior to the seventh grade to see who's got the bigger vulnerability in terms of just the number of animals, you know, that have no immune status against you know, FMD.

So, you know, your big picture is we have daily trades with animals and products. And this is your baseline, you know, vulnerability.

It doesn't include the other species. We've got slides couldn't cram it all on one slide.

You know, this again shows, you know, our country there's cattle, you know, basically everywhere in the darker (unintelligible) describe, you know, the population that is cattle.

Swine although there's a huge concentrations in the United States and piglet production systems, you know, in North Carolina.

The other thing when you talk about FMD is you've got to remember all the species that it can affect including the small ruminants, including the wildlife.

You know, our actual numbers of sheep and goats or smaller compared to like cattle to pigs. But when we look at the distribution, pretty widespread distribution so it's something you can't forget about during response or planning.

This is just, you know, mass data I think from whatever the slide says. So the situation may have changed, you know, obviously but this is just (unintelligible) distribution animals across the country.

So I think we all kind of agree that we have a huge inventory of at risk animals and they're widely distributed.

The other thing where we're really unique around the world is we have very small operations. We've got medium-sized operations, we've got big operations and we've got very big operations.

So again not news to anybody in this group. I think this is Dr. Roth's slide actually. I'll let him speak to this one.

Dr. James Roth: You know, (unintelligible) animal movement is another huge vulnerability as I think everyone realizes, estimated to be 1 million pigs on the road every day, half of those going to slaughter, 400,000 cattle on the road every day.

And then we've got option markets there the exhibitions where animals are mingling and going home again so that the movement and mingling is a huge vulnerability.

And then the diversity of size as Dr. Zack mentioned we've got some very large facilities. These are dairy cows, 800 facilities with over 2000 cows with about 1/3 of the inventory.

So we have 18,800 facilities with less than 29 cows, 29 or less. So all of those need to be considered and managed probably in a different way.

Similarly with hogs 62% of the pig inventory is in premises with 5000 or more. But there's 48,700 premises with less than 100 pigs. And this is as of 2013 I think.

And all of those have to be managed. The big ones have some bio security but the small ones probably not so much.

We're coming off of, you know, the SECD outbreak in this country where we've seen, you know, another virus and there were movement controls, you know, the states did put quarantines or hold orders on any premises.

But various means of transmission, you know, if you have a population again has no immune status the virus can move around. And I know that virus is particularly hard in terms of, you know, a very small dose and very effective.

And then the (unintelligible) virus coming out of pigs is just another lesson about the how rapidly a virus can be transmitted.

You know, obviously the animals, you know, the livestock moved to slaughter so one of the things at risk is not just the health of the animals from getting sick but then when you have certain farm animals these introductions you lose basically (unintelligible).

One of the things we lose immediately will be the (X-meds) for (unintelligible) most of (unintelligible) the commodity (unintelligible).

The disease and the folks in the industries in the states can probably speak to the peaks and valleys each year. But that's basically the trend for export has been probably larger every year.

But in 2015 I don't know if that's attributed to the SECD or (unintelligible) generally the trend is up.

So when you add up all the numbers I mean this is an estimate from a couple different, you know, export councils for again what's at risk of the annual values of US exports?

But this represents, you know, a large amount of the profit, the economic profit and sustainability the (unintelligible) culture is, you know, in the export market currently.

There have been, you know, some estimates on what the total cost of what an FMD outbreak may look like.

And, you know, the true thing to remember is not just the economic impact but again if you quarantine whole order disruptions the movement, you know, what are impacts on the individual, you know, owners growers producers? Sometimes that's captured in the numbers and very often that's not captured in the numbers.

Dr. John Zack: So this is a study that was done by (Dermot Hayes) for the pork industry. The cumulating process over ten years of an FMD outbreak.

We assume that once FMD got here it would be ten years before we got rid of it. And you can see the numbers very, very large impact not only pork and beef but there's an impact on poultry because of the drop in beef and pork

prices, corn and soybean impact of wheat because of the decreased consumption of commodities.

Dr. James Roth: So I think beginning with stakeholder engagements around 2007, 2008 where basically the USDA and I think most states plans, you know, if they were written down we kind of had like a stamping out plan that we (had) introduction of FMD, stop movement and we stamp out the infected animals and the exposed animals or dangerous contact animals which is really not a bad plan if you can catch it early.

It's probably the best plan is the - if you can identify the virus in the country quickly to remove the virus quickly. I mean it's a good first step, you know, containment and response and eradication policy.

I think the issue is that when you look at countries that don't have FMD they have the virus introduced like, you know, I think South Korea is a good one to examine where they've had outbreaks where they were able to manage it, control it, contain it, eradicate it. And then they had an outbreak where, you know, it got away from them.

Once it breaks - once it gets away from you and they ended up I think populating about 10% of their swine - national swineherd they moved to blanket vaccination.

So between looking at outbreaks around the world I mean it's good to say well we want to have this strategy to start but, you know, what if you get to certain triggers or size of outbreaks where that you can't manage it with stamping out?

I think you talk to different people in different industries in different areas and threshold of what stamping out is is quite different. So is there even really consensus on how far you would carry out a stamping out policy?

So we went back, you know, Stakeholder Engagement Rate Plans, you know, we put these out publically. We changed our response hold that, you know, we obviously wanted to check control and contain it. We want to eradicate it, strategies that, you know, are worse than the disease itself.

So in other countries that have done this; no big news. But I think that, you know, putting it down on paper then it makes you think the next logical step is (unintelligible). So if you can't stamp out a situation, what would you do, how would you handle it?

So basically looking at what your options are in terms of just practical options and how the World Organization for Animal Health organizes FMD response, you know, these are your basic options. You can stamp out which just basically means you'd depopulate the infected animals, you know, direct contact in animals.

We have vaccines. You can do stamping out modified with emergency vaccinations to kill. That is where you would vaccinate animals. It would not go into the slaughter channel. You would say you would vaccinate the slaughter where you vaccinate animals that would be eligible for the slaughter-to-control fashion.

Vaccinate-to-live is where, you know, you would realistically accept the option that if you had FMD and you were trying to protect animals, you would vaccinate them. And for certain types of animals like, you know, milk, you know, cows that give milk or sheep or goat that give milk or genetic stock,

that you would, you know, keep those animals around for the duration of their lifespan. So that would be like the vaccination-to-live strategy which is how you would, you know, handle a lot of diseases of severe animal impact.

The final one would be like, you know, how they handled it in some other countries where it's been epidemic where you just begin kind of, you know, yearly blanket vaccination and move toward, you know, a testing strategy. So you may not, you know - when you get to that point, then you're not stamping out battles because you probably have the immune raises or either the natural infection or vaccination of not having - your handling more of the blanket vaccination strategy for years.

I guess the one strategy that's not on here that I think is on the table for the United States would be -- and I don't know how. We're going to have to write it in; it will probably have to be almost like a second section. Will be if we don't want to stamp out and you don't have vaccine...

Man 2: That was my question.

Man: ...and it has some, you know, natural recovery like sheltered place to recovering place type strategy.

((Crosstalk))

Man: Like you have a huge feed lot and you're like, "Well, we can't logistically put it down; we can't afford it. We don't have vaccine." If the virus went through those animals you would let them recovery or at least the ones that could recover.

(Marianne): If we do not have the vaccine and the case-abilities of getting there would not happen soon enough, do we need to have an additional on there? Is that what the situation would be?

Man: I think it is on the table. It's not written into like the World Animal Health (OA) code, but in terms of the United States planning, it's definitely on the table. You know, circumstances drive your, you know - that's the circumstances drive what you do; not what you write down on paper.

Oh and (Dr. Roth) took on the task - you know, one of the things we'd learned is that when you talk about any kind of disease outbreak, you know, I'm visualizing the situation would be three stage outbreak or - and then somebody else is visualizing something isolated somewhere.

I'll let you explain (Dr. Roth), but just kind of a nomenclature so we can - we talk about outbreaks, we can kind of all have visualization of what we're talking about.

(Dr. Roth): When we started working on this Comilla supply project, there was a lot of debate. Those who felt you have to stamp it out until it's gone -- and that's great if you can do it -- and those who said, "Well we can't stamp it out." So to get everybody kind of on the same page for discussions, we came up with the phases and types of outbreak.

Phase 1 is the first few days where you're trying to figure out what's going on and get the data, and that would be stop movement and stamping out if possible until there's (unintelligible) data that you know how to operate this.

If it's a small local outbreak, you continue stamping out very aggressively because you might be able to eradicate it. But as it gets out of hand, moderate

regional outbreak, you could continue stamping out and bring (sic) vaccination in you have vaccine. Large regional outbreak, you probably couldn't stamp out everything, but (unintelligible).

And if you can't kill them quickly, you don't really need to kill them unlike even influenza. They'll stop shedding themselves in ten days or so because they become immune. And once they stop shedding, you don't really need to kill them. So if you can't kill them quickly, you mine as well let them live.

And then you would start depending more and more on vaccine to control it. Without vaccine, it's hard to imagine how it would stop before it gets to a Type 5 catastrophic US outbreak where it just keeps spreading.

For the new secure (V Supply) Project that we're working on in CBA and USDA, we have a working group on how do you manage an infected feed lot. Because you get a big feedlot infected and you don't stamp them out, we need to think through - we need to have feedlot veterinarians think through how would we manage stamp to get them to recover, and then back to productivity so they move swatter after they recover, which is a new sort of concept also.

And these are all just guidelines. The Incident Command will make the decisions they need to make during the outbreaks, but it's helpful to think about those things ahead of time.

Man: And just to go back a slide for adding, you know, the recover, we could do that but that's obviously not ideal because it definitely is not, you know, like getting a ward; it's a very severe production, you know, disease in animals. Young animals will die, you know, I think they (unintelligible) or something; they get a heart inflammation they'll die.

Also on older animals, I think swine, depending upon the strain, they'll sluff, you know, they'll (unintelligible). You know, hoof-and-mouth disease, you'll see a lot of deration (sic) on the hoof and cattle will sluff their tongue. So, you know, even though they'll recover from it in theory, it still causes severe production losses, you know.

And sheep are the one species described, depending on the strain, as being the least effected. But other species including sheep, it can be where, you know, they won't eat, you know, they won't drink. So you could have, depending upon the situation, like if they were in a feedlot, I don't even know how, you know, they would handle it in a feedlot; you know, the ability to get water/eat.

So it's not just like, you know, a cold blowing through the group. Many strains will be very severe, you know, animal production disease.

(Dr. Roth): I think the other thing about the phases and types, once you get to Type 4 or 5, the recommendation is probably stop the emergency response because it's so far out of control, and shift to a program disease for a long-term eradication like the Brucellosis EP Program. There will be several very different months until we get enough vaccine to control (unintelligible).

Man: And I think that, you know, based on - and people may disagree, (unintelligible), you know, it's good to have different thoughts. But I think for a lot of folks that look at this that, you know, given our current response capabilities and vaccine capabilities, we're probably equipped, you know, to handle a Type 1 up to like a Type 2 outbreak particularly if needed vaccine to help, you know, control the outbreak.

And back to capabilities. What should we have now? You know, what is your capability?

And I think that that's why, you know, that some folks, you know, want to lump and split the types. You know, but you're basically looking at something that's like a small regional to a larger regional to a more full-blown outbreak and try to evaluate, you know, what are your capabilities to deal with it.

Again, I think this has been discussed, you know, for several years now, and I think it's good. You know, for one, we were pushed by many in this audience, you know, several years ago to like, "What is your strategy?" I'm sure (Dr. Clony) did this a couple of times (unintelligible) like back in 07/06, that era (unintelligible).

But that's a good thing. It was kind of like, you know, let's be real. What - can we really stamp out in every situation. And is it was good the stakeholders, you know, pushed us to solve the problems of today and say, "Okay, let's start to evaluate what we would really do in an outbreak."

And I think that through all the collaborations, you know, the industry groups preparations, the state preparations, I think everybody is kind of on board. They may not agree on all the triggers for each species or each state, but everybody kind of can recognize that, you know, this could become a big problem and you may need different tools to handle it.

Getting to our current, you know, capability, you know, versus recommendations, the current, you know, North American FMD Vaccine Bank, which is again a shared bank between the United States, Canada and Mexico. The United States is the main contributor. You know, there's about 2.5 million doses for, you know, I think 10/11 doses that it's probably been increased since the slide was done.

I know (Dr. Roth) has proposed, you know - I'll let you say what your proposal is.

((Crosstalk))

(Dr. Roth): I was asked by the (MPBA) National Port (unintelligible) to develop white paper on FMD vaccine needs and how we might have enough FMD vaccine to respond to an outbreak. And of course there's 20-some different strains that you may need to be able to cover whatever strain you have depending on who is counting those strains.

So it's not one vaccine, it's the whole (unintelligible) vaccine. And that's what I presented last year to this group.

In summary, it was with various combinations of quickly available, medium-term available and long-term available, we would need a lot more vaccine than we have now. And it costs about \$150 million a year over five year was the estimate to have enough vaccine at the end of five years to have some constant ready to respond with vaccine.

Man: And so there's also been, you know, FMD is complicated in terms of the vaccine. You know, you have what, seven strains of FMD. I think the world organization - I think the FMD World Reference Laboratory recommends they have a high-risk, medium-risk, low-risk vaccine, so that list is about 17 or so strains. And that's what (Dr. Roth) had in his.

Beyond that there are other strains. In theory, you could have up to I think 23/27 of specific vaccines types available. That's while you'll see these estimates. And this is just kind of breaking it down by single type of FMD vaccine.

Well (Dr. Roth), I think is saying, well, you know, for us to - you know, the 2.5 million doses, you know, may be should be closer to 32 million doses for those 17 strains. And others may recommend that if you want to be more fully prepared that you would have, you know, approximately 30 million doses for up to 23/27 million strains.

And we've had a lot of in-house discussions and discussions with other countries and discussions with vaccine manufacturers. And I think the critical issue is really, you know, if this gets back to procurement, if you have a policy and you then want to identify the capabilities to implement that policy, then, you know, people tell (unintelligible) the most biggest animal, you know, health vaccine produced around the world is FMD. FMD Vaccine is the most widely produced vaccine around the world.

So what's the big problem? Well we have FMD operate, we've got vaccine to go right away, and we'll fill the gap with vaccine we can buy on the old market; supply and demand. It will be if we have a problem, vaccine is made all over the world, why can't we just meet the problem at the time of the crisis.

And this works for a lot of commodities that you're trying to procure, but it doesn't seem to be the case for FMD Vaccine.

And I guess the best analogy to it is kind of like a seasonal flu vaccine where if you have to order something and it doesn't have the right strain in it, you know, like they come out with a typical flu vaccine with, you know, how many, three/four endogens in it a year? If you're trying to order something that doesn't exist, then you're back to making it from scratch.

So I think some things that you can procure that are sitting on, you know, some widgets or bullets are sitting on warehouses and you can order them. The key thing is the time in delay of when if you run out of vaccine that you have in your bank, or what other countries are willing to sell you or give you, that you may have a delay of anywhere from like I think 14, you know, 12 to 17 weeks. You know, basically, you know, a minimum of 12 weeks; could be a little later depending on the strain.

And you know, three months, four months in terms of ordering something, you know, that's not so bad. But you know, an outbreak -- a huge outbreak -- vaccines are kind of like airway breathing circulation; it's kind of like losing - you know, 12 to 14 weeks will be an eternity in an outbreak if you're waiting on vaccine that you need vaccine to control.

So, you know, we don't want to be overly pessimistic on this; we want to be realistic on this. And we've been asked by various smart people, "Okay, again, there's vaccine on the market, why can't you use the vaccines on the market?"

And I'll let (Dr. Roth) (unintelligible).

(Dr. Roth): As (Dr. Vac) said, it's the largest used vaccine around the world. And there's some very highly regulated companies that use very good vaccine predominately companies located in Europe. Those vaccines aren't licensed in the US but they meet a very rigorous standard in Europe.

There's one company in South America that hasn't gotten its vaccine licensed in the US; it covers the four strains that are found in South America.

Many of the other companies, discussions going on now, they use (unintelligible) that's eradicated (sic). And that can be a real problem. You don't want to bring in something with your FMD Vaccine that causes whole new problems. You want to have confidence in the safety and efficacy of these vaccines.

So a lot of those - the majority of those vaccines are made in China and India. Really you don't want to bring those in until like it's early (sic) tested. We've talked to some of those companies and they don't want to have the US gig come in and inspect their facilities.

So even though there's a lot of vaccine, there's very few places that you would trust the vaccine to use it in the US. And those doses are already sold to their clients and customers.

Man: In addition, you know, we would want to use high potency vaccine again without getting too (unintelligible) out in the weeds, you have kind of what are considered like normal potency and then high potency vaccines. And the high potency vaccines we can basically - if we have individual animals or hurt animals, we can differentiate the infected versus vaccinated animal.

You've probably all heard (unintelligible). The high-potency vaccines give you a better community quickly. In some cases, you may not have the booster or boosters rapidly, and the most critical aspect of that would be the (unintelligible) capability.

(Dr. Roth): And there's the new technology vaccines that look very good. There's one that's conditionally licensed with one strain which is the (New Vandal Virus 5 Record Vaccine). So there's been quite a bit of investment in that but it still needs more investment.

There's a leaderless vaccine that was produced by USDA or researched by USDA on Comilla and it looks very good. Has a kind of stake virus, you can grow it, you could grow it in the US. It wouldn't escape because it won't replicate in animals.

And the evidence of it has very high potency; that's been stuck on the (unintelligible) agent list even though it's a vaccine strain. So that would be a really nice technology (unintelligible) agent would have a fake (sic) vaccine.

So there's some options out there that require more time and money but we could have those available.

Man 2: Are any of those new options ones that cover all the strains?

(Dr. Roth): No. Everyone one of those you've got to put the strain on interest in, so you have to have multiple of all of those. Nobody has come up with a vaccine that covers all the strains.

Man 2: So the one that would really help us the most would be that one.

Man: Well that one looks very good.

Man 2: I mean the break (unintelligible) is one that would cover all strains.

(Dr. Roth): Yes, if there was one that would cover all strains, that would make this an easy problem. But there isn't and nobody is very optimistic there will be (unintelligible).

Man 3: So how many vaccines do you think you're going to need to cover (unintelligible)?

(Dr. Roth): There are 60-some (unintelligible) types. And the World Reference Laboratory estimates at least 17 would be needed in a...

Man 3: Seventeen vaccines.

(Dr. Roth): Seventeen different vaccines (unintelligible). Many of the ones used around the world are combinations of two or three (unintelligible).

Man: So the answer to that question, you know, one of the estimates will be if you had 32 million doses for each strain for like what the, you know, (unintelligible) or whatever, that that would get you out the gate; that would be enough vaccine hopefully to hold that (unintelligible) until even more vaccines would be able to have production (unintelligible). That's one, you know, estimate.

This slide is just kind of going back to the top where, you know, you have all of these out plans and what is your capability to implement you plan. If you get a small local outbreak, you may not need much vaccine. But as you move into the larger type outbreaks, (unintelligible) then what are your other tools to handle the situation.

You know, we talked about the recovering place; you know, stop movement. How long can you stop movement? What types of movements are you going to stop? You know, these become very (unintelligible), you know, in production agriculture whether you're small or large, you know.

(Unintelligible) but let's say you just had, you know, the number of pigs in Iowa - somebody correct me from Iowa...

Man 4: Over 20 million there.

Man: So there are approximately 19/20 million pigs in Iowa. If you had a vaccine (unintelligible), the other would be the number of cattle (unintelligible).

You know, so when you start looking at - there's I guess the empirical look at, you know, in your own backyard, your own state, your own neighborhood, your own industry, if you had to vaccinate your (unintelligible) or to live or just to keep things moving in commerce, you know, what's your estimated number of doses?

I think that, you know, again, going back to originally there was a push to change our policy which was a change and that I think has been done to a large degree. We need to revisit the details on how you conduct operations and all that, but, you know, putting back like ten years ago to actually sit down to not just stamp out but we have other alternative strategies that have been I think pretty wide accepted for that (unintelligible).

I think there's been an acceptance that we need to increase the vaccine available for the United States and the North American FMD Vaccine Bank, to continue that partnership. If those countries, again, get much larger inventory of animals, they may need to, you know, pay for our vaccine; they may need to pay for their vaccine.

But we want to have that partnership, otherwise (unintelligible) between, you know, (unintelligible) and livestock industries to kind of start to flush out

what we think would be again the correct inventory of vaccine to have in the Vaccine Bank to be better prepared.

And that's one of the questions for everybody. You know, what in your mind, for your industry, for your state, what do you think is the acceptable level of preparedness?

You want to go back to the exclusion; it's worked great. Exclusion has been wonderful. It's better to be good and lucky. But when that day comes, if it comes, you know, what level of preparedness do you want?

So I think there's (unintelligible) around increasing our access of vaccine procurement contracts so that we're not at the mercy of other countries to ask for vaccines as part of an outbreak. You know, we as the United States have a capability to, you know, have our vaccine along with our partners in the north (unintelligible).

So some of the - you know, so it kind of comes down to (unintelligible) taught this on this slide. I'll let (Dr. Roth).

What is - is that 150 M? What's that M?

(Dr. Roth): Million dollars per year over five years. And by the end of five years, we could have (unintelligible). And then...

Man 2: (Dr. Clifford), what percentage of that is of your budget?

((Crosstalk))

Man 5: (Unintelligible) more than 50%.

Man 3: So we were talking at lunch and I think (Marianne) has a question to ask.

(Marianne): Now?

You know, last year, that was my first meeting when you gave us this information and we talked about, you know, needing to ask for more funding whether it's through USDA's appropriation; it's Homeland Security somewhere.

Have we asked for any funding for that 50 (sic) bank? I realize the USDA budget is very squashed. Is there a way to get it from another source? Have you asked for it?

(Dr. Clifford): We can't. (Unintelligible) right now. And it would then be adjusted to budget or a very (unintelligible) amount (unintelligible).

They do budgeting for research productivity things, but not (unintelligible).

Man: They're not going to give us that kind of money.

(Marianne): They give us any money?

(Dr. Clifford): (Unintelligible), probably not.

((Crosstalk))

(Dr. Clifford): The only thing that's realistically going to kind of require, and I'm behind this (unintelligible), and until that happens, we're probably not going to (unintelligible). I'll share between the industry and (unintelligible).

It's up to the industry and I know it's painful. (Jim's) come up with one possible (unintelligible). (Unintelligible) out \$50 million a year for five years.

Man 4: Is (Dr. Clifford) paying the - one of the potential for cost share would be - it's been discussed as a voluntary (sic) check off.

(Dr. Clifford): And I can't answer that. So it wouldn't even make sense for me to ask for this in my budget. First off, I'd never get it (unintelligible).

But secondly, this is to have something (unintelligible). So something is already happening (unintelligible). So you know, we might - my priority right now is (unintelligible). Obviously this is extremely important for us; that's not my priority.

Man 5: So we have a lot of time to get discussion here (unintelligible) like (John), (Jim), (unintelligible) come up with questions. But I do want to get through this (unintelligible).

Man: Am I over time? (Unintelligible).

Man 5: No, I think you're good. I think you just have another topic to cover later this afternoon.

Man: So some of the public/private partnerships would be, you know, the voluntary check off, the other one you may be familiar with this; you may not. The other one, you know, being discussed is a non-voluntary check off. You know, the pros, the cons to, you know, all these (sic). You know, (unintelligible). It does require a Congressional Act.

To answer your question, the current status of funding, I think on the USDA side, you know, as (Dr. Clifford) just said, you know, we're not in position to go paying this money.

I think that many in the industry have come to us and said, you know, "The government should pay for it as (unintelligible) eight or nine or whatever."

So I think just to sum up, you know, I think we have consensus for change. It's kind of like the consensus is not there yet on how to fund it or the idea on how to fund it is not there yet. And that's, you know, something we need to do.

Man: (unintelligible). They don't check every container. They check when they have a numerical model that tells them where to look, and pick, and then they check to make sure that it is boneless and that it conforms to our requirements. And then it goes out into the public for human consumption.

All right, these are boneless beef cuts or you know pretend it is hamburger, pretty good quality cuts. Goes in for human consumption. Now how is it going to get into an animal population? The only way to do it is waste, okay. You'd have to go probably into a garbage (unintelligible) operation (unintelligible), okay, so now you've gone into a garbage (unintelligible) operation that are also controlled and required to cook. They are required to cook for these exact things because of FMD, classless (swine paper), those types of things.

So you've got all of these steps and mitigations. We are not going to get FMD for bone (unintelligible). We've been bringing it in for years from Uruguay. We brought it in from Argentina prior to the Argentina break when Argentina did lie about it. We were bringing in boneless beef from Argentina. (They

didn't get it), and now over the last quite a few years, they have really been working hard in South America. Now there are some countries there we are unsure about. Could you go back up into the Amazon somewhere and potentially find FMD virus?

No, you know no one is saying you couldn't. I don't know. You know Venezuela, Ecuador, you know a couple of those countries, it could be there, but all of those countries are working hard to eradicate that disease in South America. Truly, there has been no circulating virus (unintelligible).

Now Venezuela may not be as open as everybody else, but even OIE and others have been in Venezuela and they don't think there is virus circulating there now either. They use a lot of vaccine in South America and (unintelligible).

Okay, South America is safe. If you want to worry about something, I will tell you exactly where to worry besides the stuff we don't know coming in. We still better be worrying about China. And the only reason I say that is I am not trying to point the finger at China. BED virus came from China. I don't know how it came into this country, but it came from China and besides that virus, we have three others that have come (unintelligible). They may not have come direct, but that's where we know from the viruses themselves they were in China.

Until we close that gap and know exactly how that happened, we are vulnerable. China has FMD. China has a lot of these diseases. That is what worries me. It is not Brazil, it is not Argentina. I know I could talk until I am blue in the face and probably not satisfy the beef industry in this country, but you can be worried I know.

Woman: Still the fear is there, but you know trade works both ways. I understand that, so...

Man: You know if you look at the diseases we've recently gotten like BED, (went through trades). I've had (unintelligible) through (trade).

Woman: (Unintelligible).

((Crosstalk))

Man: (Unintelligible).

Woman: (Unintelligible).

Man: Well I don't know if that is the case, but it is - you know we are looking at (totes). Do you know what (totes) are? They haul these big grain in these (totes). These (totes) - we are doing some studies on those. Those (totes) - I don't think they are being reused and shipped back over, but they are being used. When they come here to the U.S., then they are being used by local feed (unintelligible).

Woman: (unintelligible) comes in it. They get reused all the time.

Man: So we are buying organic soybeans from China. Do you all know that? I know (unintelligible).

Man: (Unintelligible).

Man: So it is going for human consumption and it is going mostly for organic poultry.

Man: (Unintelligible) is always going to be a bone of contention.

Man: All right, well you wanted me here.

((Crosstalk))

Man: No I think one of the most - in my mind just to continue just a little bit is that I think that the risk assessment teams that have gone to various countries often include a state veterinarian, and that was a great program that the USDA has done and for a number of years. I don't know whether they are still - they are reinstating it.

Man: Reinstating it, yes.

Man: So what it does - the risk assessment team goes to a foreign country to evaluate a certain program, and I participated in one in '05 in Argentina ten years ago next month. And it was right after Argentina had lied about their FMD operation, meaning they didn't report it to the OIE. For six months, they ran a full-scale vaccination program before they admitted it, and yet they in 2005 requested to trade with the U.S. and import their beef to the U.S. and that rule has recently come out within the past year or two.

And so, when we were down there, we traveled around the country, Northern Argentina, and talked to farmers, talked to the government, and just to give you an example. At that time, even though they lied about their (outbreak), they were exporting beef to the EU, and they have been ever since, the EU. And they had all of the cattle that were - talk about animal ID. All of the EU (unintelligible) cattle beef were tagged (unintelligible) and they had to be, and so they've got a better ID system than we do now in this country.

And there hasn't been any FMD from Argentina and the EU because of that. I mean there is (unintelligible) but I tend to think that - agree with (John) that if we get FMD, it is going to be smuggling or inadvertent or something like that. I don't think it is going to be (unintelligible) but I appreciate the fact that we've reinstated the program to allow (unintelligible).

((Crosstalk))

Man: Yeah and the only reason we cut back on that (unintelligible) is because of (unintelligible). When we were losing (unintelligible), we got assistance.

Man: Yeah.

Man: So the (unintelligible) is.

Man: Yeah (Joe).

(Joe): Yeah, this is (Joe). You brought up the question of trust and do you trust the United States? I think there was one report I read a few years ago about during the BSE issue of beef going to Korea from here that ended up with some backbones in it.

Man: In a lot of cases.

(Joe): So we don't have much trust of the corporations that...

Man: So you don't trust your own either.

(Joe): Let's put it this way. I do trust it. I do trust them to go where the money is.

Man: That's why you've got to trust but verify.

Man: I have a (unintelligible) one. I was on your NPPC what you call it.

Woman: (unintelligible).

Man: (unintelligible) and this type of thing. We went down to the Port of Miami a couple of years ago and I don't know there were probably 15 of us and they showed us in the Port of Miami what they had collected in a day and a half's worth of time. And (unintelligible) counter that they had taken out suitcases and while we were there some guy was trying to smuggle in an aluminum foil wrapped rodent of some type that was very dark brown and not on ice.

But anyway, what concerned me is there was a lot of processed meats in bags but then there was carcasses of something - pork and it looked like rodents (that were coming to parties) and this kind of thing. But I asked where they were - how they sampled these things, and they said well they put them in freezers and every so often.

I don't know what agency came by to pick up samples and I was kind of thinking about NDSL and NADC. If you could get in there from the public. So here, we were 15 guys walking down this hallway and I said, "So where do you keep that stuff," and they said, "Well in those refrigerators right there." No (unintelligible) security or anything. I mean we could have walked in and opened the door up.

But I thought it was - it looked like fairly high risk stuff was coming out of the suitcase into those freezers, and there was (unintelligible).

Man: (unintelligible) we don't test (unintelligible).

Man: But it still got in the country. I mean it is still could be walked around.

Man: People carrying it in.

Man: Yeah, but it...

Man: In suitcases.

Man: Correct.

Man: Yeah exactly. That's (unintelligible). And all of that (unintelligible). So there were questions on the current status of the Brazil (14) (unintelligible) Rule and the Northern Argentina (Beef) Rule. Those were both proposed rules that we published and the comment periods have closed, so we are reviewing the comments and making the final decisions around the rules. So they were proposed rules. They have not been published as final rules.

Man: I think (unintelligible) in the (unintelligible). (Unintelligible) in Argentina.

Man: (unintelligible) to get the answer to your question about the industry supporting the (unintelligible).

Man: No I didn't.

Woman: (unintelligible) share exactly. Well (unintelligible) is that you say (take a look with any of the money).

Man: I didn't say that. I said we needed cost share to come up with money.

Woman: Do you have any idea what that would be, what percentage that would be?

Man: 50/50.

Man: This is just like (unintelligible).

Man: That's right. (Unintelligible) prevention and the industry is (unintelligible).

Man: That's not totally true but it is not (unintelligible) yet.

Man: Are you having any trouble getting money for the (high path) (unintelligible) and stuff?

Man: Thus far, we've gotten \$84 million for (unintelligible) and the secretary (unintelligible) request (unintelligible) to (unintelligible) and put in an additional request. I can't really speak to that.

Man: Okay, so let's take a break. (Unintelligible) RJ.

Woman: Let's take (unintelligible).

((Crosstalk))

Man: So we need to be back (unintelligible).

((Crosstalk))

Man: We need to be back at 3:25 because (unintelligible).

((Crosstalk))

Woman: Canada. By this time, the U.S. cases had started to go up, and Canada was probably feeling really good. We dodged the bullet. Wrong.

This is Canada's policy and it established the primarily control (unintelligible) process, however, as they tightened it down, they more closely defined restricted zones and infected zones and the red circle enclosed areas where they actually had infected premises.

And this is very similar to what we are doing here in the United States. I said they were breathing a sigh of relief. Wrong, on April 6, they actually placed quarantine on two premises and they confirmed on the 8th that it was H5N2.

The last premises they detected was on April 22 - 23 excuse me. So I would say this is an active situation ongoing in Ontario right now. And if you look at the proximity of both the previous infections or the previous cases and their location to the United States, this one in Ontario is actually fairly close to the Michigan border to the west (unintelligible) Ohio. So we've got north of the border.

So our (unintelligible) again in December, although we had no idea at that point in time how it was going to progress, but the first was a (unintelligible) bird or (unintelligible) event. The samples were collected through Fish & Wildlife Services, went to their laboratory, and while (unintelligible) infection. They also (unintelligible) H5N2. And so, this was our first indication of HPAI in the United States; however, it wasn't a wild bird mortality event.

Soon upon the heels of that investigation, there was a captive (deer) falcon that had capture and partially (unintelligible) an American (wichen). It was unfortunate for the falcon. They did that because the American (wichen) was

obviously infected with HPAI. So that animal died as well as the other two falcons that were fed off of the (wichen), and we discovered H5NA.

So at this time, we have a wild boar bird mortality event and a captive wild bird event without any indications, but certainly the red flags were up at this time as to what was going to happen.

And I refer to this as the western part, because the western part of the United States. You see that the majority of cases are in (backyard blocks), although we did have three commercial facilities, one of which was a (low caveat) but I went ahead and added that in here.

There was another (backyard) facility that was detected in April, but it seems that in the commercial facilities in the western U.S. keep your fingers crossed. It has been fairly quiet and a majority of cases have been in (backyard) facilities.

I am going to fast forward and this is a (epichart) of what we have seen from December 10 to April the 23rd. This is the weekly reporting. And it started out again with a detected wild bird (backyard) and then we would see a commercial facility in the latter part of January. And then what is concerning is if you look to the right of that (epichart), 3 cases, 19 cases, 33 cases, so we are in the midst of it right now.

This slide includes the wild bird detection and overlay, and one thing I want to point out about this lab, there is probably (unintelligible) of data relative to the type of wild bird surveillance that has been conducted. When we found our two initial cases in a captive wild bird and in a wild bird, there was a desire to ramp up on the west coast our wild bird surveillance so they did. It was Fish

& Wildlife Services and (ASIS) including veterinary services and wildlife services. Worked on a surveillance plan.

And so on the left hand side of the (epichart), those wild bird sections are staying for a part of that early detection. (unintelligible) wild bird surveillance in many ways is driven by the (unintelligible) seasons and in the central part of the U.S. and in the Atlantic flyway, there has not been that type of focused surveillance although they are ramping up and will be doing surveillance in that area.

So and what was referred to earlier that we had wild bird findings in Kentucky, I think we talk about it is not a question of if and when, and I would - if I was a poultry producer in any state in the U.S., I'm not sure I might exclude Maine. But I'm not sure that it's not a question of (unintelligible) but it is when you are going to find (unintelligible) in a wild bird. And I will close this presentation and have more details about the wild bird (unintelligible).

And the (unintelligible) slide is I did this slide last night and I would like to point out that last night there was a total of 89 positive (unintelligible) and earlier today Dr. (Clifford) mentioned that there was 101. So it - we continue to detect cases and the breakdown on the 101 expected (unintelligible) is that there are 89 commercial facilities and 12 (backyard) (unintelligible). So we've seen it on the west coast move from a (backyard) type situation into a commercial situation.

I don't have the numbers for the population - for keeping these populations updated, but you can see we are roughly at 11 million birds. The (unintelligible) those, we have committed about \$65 million in indemnity and we have paid out about \$8 million in indemnity. As of last night, it is - we had

14 suspect or presumptive positive premises and these detections while we are doing summary reports in some cases, we are reporting the detections to OID.

It is - somebody asked about the traded (unintelligible) and I don't know. This was a summary of some information, but Canada, Singapore, and the EU are looking at our zoning that we have established and have not implemented whole country bans such as what has been done by South Korea, South Africa, Thailand, and China, and we do continue to work with our trading partners to try and open trade where possible.

Anybody recognize - well it kind of says what is wrong with the chickens, but that is what this slide - particular (unintelligible) surrounding (unintelligible) in a chicken. And so that would have been from one of the backyard (unintelligible). On the right hand side of (unintelligible) clinically (unintelligible) and a depopulation crews you can see there with their protective gear on.

So we are - initially we were conducting our response crew to (unintelligible) management teams that were located in the field and we have four teams. The blue, green, gold, and red teams. However since we have the additional cases in Minnesota, we have ramped up an incident coordination group as well as the IMTs that are in the field. And currently, I think we have two IMTs or Incident Management Teams on the ground, and those management teams have a planning section, an operations section, a finance and admin section, and then a logistics section.

There is tremendous work as you can imagine with each of these groups, but particularly the logistics associated groups and with the depopulation of a million bird flock or 3.8 million bird lock, the logistics are quite extensive.

And so as the - (John Beck) is serving as executive incident coordinator and (Burke Healey) is our national incident coordinator, and you can see here we have sections that (unintelligible) the IMT. But because of the increased number of cases and just the magnitude of all of the activities, this incident formation group has been stood up.

And you know I think one comment that I heard earlier and just to point out is you can see that in some cases, some of these sections have yet to be - the individuals and (unintelligible) duty have yet to be named and it is extremely resourced. So the resource - question. So the response activities you can see here.

On indemnity, I want to emphasize one of the earlier comments that was made because we have changed our policy on indemnity and that is I will just indicate what our policy is. That the first case in a state has to be confirmed by NDSL, but after that, we will actually indemnify on (unintelligible) positive at the (mall) laboratory. When we receive notification of that result, we try and go out to the premises. They go out to the premises to get an inventory at that time, and the indemnity will be based on that inventory. So to stress in some situations we are (unintelligible) first as I just described.

The zoning that we have put in place you can see here is we have a zone around the infected zone which is at least 3 kilometers around the infected premises and we have a buffer zone which is another set of kilometers. And then outside the buffer zone, we have a surveillance zone, which is an additional roughly 10 kilometers.

The size of the zone varies and it depends on the circumstances of the area they are in. The HPIA (unintelligible) the environment, the geography, jurisdictional issues, but at a minimum, there will be the 3 kilometers, the 7

kilometers, and the 10 kilometers. And the control zone consists of the infected zone and the buffer zone and this is where your primary activities are taking place in regards to controlling those (unintelligible).

For depopulation, we are using CO2 (unintelligible) and then for disposal and (unintelligible) composting and landfill. And it was alluded to earlier that the magnitude of the disposing of 3.8 million birds or 20 tons of birds is just - it is difficult to fathom.

I think in regards to the surveillance activities, in addition to the work for the individuals that are on the response teams that are on the ground that also for diagnostic laboratories is the amount of work that is coming in because of the sampling. So for contact premises, suspect premises, or monitored premises within the control zone, birds are sampled every other day for 14 days, so there is a tremendous volume of diagnostic testing that is being done in Minnesota and other states that have impacted infected premises.

An at risk premise is tested once every five to seven days for the duration of the quarantine and it continues until the control zone is released. So the period of testing can be fairly long depending on what is going on in the control zone.

For those premises that are wanting to move product, they can move product as long as they are not considered an infected premise. So if they are moving live animals or hatching eggs, it is too negative, five birds will be sampled. They are tested by PCR prior to movement and the sample - one sample must be taken with a negative test result within 24 hours of movement. And for (unintelligible), they have to have one negative (unintelligible) bird sample again sampled by (unintelligible). And so the sampling and testing to keep the commercial premises and business is (unintelligible).

Composting - we do either inside composting, outside composting, or (unintelligible), and one of the things that has been revised is looking at changes to the protocols that will allow the producer to get back in business sooner. So for inside composting, you are talking about a minimum of 51 days before they would be eligible to restock the facility. As they move outside, it would be less - 30 days. And then if they are able to bury the birds and other materials that need to be disposed of, it would be 21 days. All of the release from quarantine would be contingent on that negative diagnostic testing.

So there has been discussion and actual use of the continuity plan that has been developed and generated. We have to secure (unintelligible), turkey (unintelligible). And certainly if there is any questions, I will (unintelligible) who was integral in developing those (unintelligible) and (unintelligible) if he is here. But I think he is (unintelligible). Hey (John).

And so I wanted to talk a little bit about the wild bird surveillance in the North American flyways and we have a specific (unintelligible) Atlantic flyway. And while we have not found virus in the Atlantic flyway yet, I would say it is there, we just haven't found it. All of the other three flyways we have had - we have found viral.

So I mentioned early on that we did enhanced (unintelligible) flyway surveillance. It looked at (unintelligible) harvested. Primarily your waterfowl and looking at concentrating the efforts where the birds were located, and we also looked at morbidity and mortality testing and this slide depicts the areas that we are focused on.

The results of the surveillance. We found three HTAI viruses. Most were found in asymptomatic babbling ducks and I did know this so I will - does everybody know what a babbling duck is. Good.

Woman: (unintelligible).

Woman: Well no. All right, a babbling duck is a duck. You've seen a mallard. When they turn their butt up and their tail feathers are straight up and their head is down and they are feeding, that is a babbling duck.

Man: I have to ask. If it makes you feel better, I had to ask Dr. (Hale) and she told me.

Woman: Okay.

Woman: With a definition assigned (unintelligible).

Woman: Good.

(John): Contrasted diving ducks and other types of ducks.

Woman: Thanks (John). So you can see on this slide the yellow are the wild birds - (unintelligible) County. The crosshatch is where they are wild, captive, or domestic bird findings, and then the blue are the domestic (unintelligible) wild birds. And you can see there is close proximity and in some cases, there is overlap, but there is certainly HPIA involved birds definitely in specific flyways.

So there has only been limited surveillance in the central and the Mississippi flyway. From October through February approximately 400 in each flyway. There has also been some sampling around Minnesota, cases in Minnesota, and Missouri, and Arkansas, and so based on the morbidity and mortality

testing, we found a wild Canada goose positive. (Unintelligible) raptors in Missouri, a wild Canada good in Kansas, and captive raptors in Montana.

So we continue to find it (unintelligible) in the central and Mississippi flyway. And per the report on Kentucky, it would also be - that would also be a part of the Mississippi flyway I believe. And here is just another depiction of what we found, and again, this information doesn't include - or this slide doesn't include the information that Dr. (Clifford) provided earlier today.

(Unintelligible) to me (John). That's okay. So I would like to be able to tell you that yes we know (unintelligible) is moving into these (houses). We don't. However, we do suspect that it has moved into new areas, the wild birds. If you look at the situation on the specific flyway, the number of (unintelligible) viruses found close to the border of Canada and you move down into the southern part flyway and you only see one particular virus.

So there is - it is spreading. How can we explain the series of detections in commercial turkeys? Not know. I had a conversation and I failed to acknowledge Dr. (Tom Delaberto) who provided these slides. We were having a conversation about when we say that these outbreaks are associated with wild birds; some people may have the vision of a wild bird, a duck wobbling into a turkey facility.

I don't think any of us are saying that. It is that there is fecal material possibly that is being introduced via an adequate virus security that is coming in contact with the birds. But now I have this vision of a duck walking through a turkey facility, so when did these viruses - in our (unintelligible) flyways probably during the fall migration and there are several (unintelligible) studies that are underway.

We have our incident management team. There are personnel that are collecting information. There is data that has been previously collected that is going to be used to do weather analysis to see if the wind is where we are actually seeing plumes of virus. Typically, HPAI is not velocity airborne or (unintelligible) but that is one of several investigations that are ongoing.

Why are we seeing cases now persistent to the environment in wild birds? (Unintelligible) that it is the environment in Missouri and Arkansas. They did - they have found in Missouri in captive falcons, so it is (unintelligible) detection of the birds. And then breaches in (unintelligible) security for how it is actually getting into the facilities.

And I think (John) you made a comment. Is it the (unintelligible) security that previously was effective, because it has always been a hotbed of low path (unintelligible) in Minnesota? And yet, we have never seen - this is our (unintelligible) with HPAI.

So the future plans for wild bird surveillance. The goals are to try and identify distribution across the U.S. to be able to detect early spreads and to move flyways for regions. Actually, I think it is already there. Provide a flexible framework that can monitor the wild waterfowl populations for new (unintelligible) viruses, the introductions of new viruses, and to be able to estimate the (unintelligible).

The future plans have this surveillance based on morbidity and mortality. That type of surveillance goes on year round looking at healthy birds, the post nesting season, and the summer and then the fall and winter migration. And then doing some environmental samplings, which will be targeted through the year.

So the laboratories that are doing all the testing - I just wanted to kind of reference the (unintelligible) laboratories and you can see - the yellow triangles are those labs that can do (unintelligible) testing. Our current diagnostics - we are working extensively now using diagnostic testing, molecular basis, doing sequencing. In some situations, we are doing (unintelligible). That allows us to do (unintelligible) characterization.

(Unintelligible) assays, while not a mainstay of this response effort, they are still in the toolbox. And then, (unintelligible) site tests. And these (unintelligible) tests - I don't believe we are utilizing any of the (unintelligible) tests because currently we do have a (unintelligible) test that is available but we are currently utilizing it in the MPI laboratories. In the laboratory situation and that would require confirmation.

So (unintelligible) did a nice job of explaining the assortment that has taken place. And in the purple on the left hand side, you have the H5N8; the duration of the strain that we believe entered the U.S. or Canada within the past year. And within a bird - you can see the bottom circle. There was infection with two influenza viruses and the influenza that resulted (unintelligible) that were of duration origin and three genes that were American origin. So that is what we refer to - and you may have seen some documentation that EA/AMH5 into re-assortments.

The other scenario that we have had is the same originator of the influenza H5N8 that resorted with another virus, probably an H5N1, and that has four genes of (unintelligible) origin and four genes of American origin. So as was said earlier, (unintelligible) and the viruses are doing what Mother Nature has made them to do. They are doing it quite well and it is one of the reasons why we don't want these infected flocks. Either an HPAI affected flock or a low

path AI flock to stay on the ground. We would like to get those flocks off the ground as soon as possible.

And I think to go to the comment that was earlier about swine and we do we have a system right now that would detect if these viruses were to get into swine, and our current influenza surveillance in swine would pick up an infection, so I think...

Woman: I want to ask you about the swine surveillance.

Woman: Yes.

Woman: Are we having to take any money that was set aside from the H1N1 fundings for swine and (unintelligible) or anything like that?

Woman: Now there was a rumor.

Woman: (unintelligible).

Woman: Yeah the rumor got started in that and we are still good.

Woman: Okay, perfect.

Woman: Our funding for surveillance in swine will continue to (unintelligible).

Man: That's great (unintelligible). Are they doing any surveillance in the Atlantic flyway on wild birds right now? You may have said that.

Woman: I don't think they have geared up yet. (John) do you know?

(John): Well there is surveillance that goes on every year in shore birds in the Delaware Bay, which is a hotbed of low path AI virus. There is active surveillance going on in other wild birds, but it still remains unknown whether this virus is (unintelligible) birds. A lot of them (unintelligible) isolates have come from other (unintelligible) birds that were doing just fine at the time.

So and to come from other mortality events involving (unintelligible) and (unintelligible), so one case that (unintelligible) didn't mention is a couple of snow geese who got the virus out of - in St. Charles County, Missouri, which is right outside St. Louis. We could not find anything else in those two snow geese. We thought there was cholera but they came up negative on a culture and also PTR. So there is a possibility that it may have killed them, but we couldn't find anything else that killed them. So I don't know how effective passive surveillance has been except for maybe raptors apparently.

Man: So it is raptors (unintelligible) fed that (unintelligible) birds or do they actually use them to hunt.

Woman: No and there has been a hawk, I believe a bald eagle that have succumb to HPAI so it is in the waterfowl. It seems to be (unintelligible) with the exception of perhaps the geese, but the story hasn't quite been told on that.

Man: I think there - inoculated some geese at the southeast poultry lab with (unintelligible) group but I am not sure which (unintelligible).

Man: (unintelligible) was really trying to seal up the raptor center. They have some really different birds there that they are trying to physically do something about the facility, cover it. I don't know what they are doing on the sides.

Man: So questions for (Lee Ann), other questions.

Woman: (Lee Ann) another rumor was that when (unintelligible) these turkey facilities, sometimes you would have a house infected and three other houses that were perfectly fine. Is that true?

(Lee Ann): That has happened.

Woman: (unintelligible) give any - the dose relationship.

(Lee Ann): I don't know (unintelligible).

Man: So (unintelligible).

(Lee Ann): Yes.

Man: (Lee Ann) I have a question on the surveillance of the wild birds around the affected facilities that you mentioned in Minnesota and Arkansas. Are they - (unintelligible) per domestic birds, (unintelligible), and starlings, and those kinds of birds that are more often going to be around poultry houses than babbling ducks.

(Lee Ann): (John) I don't know. That is a good question.

(John): Historically (unintelligible) have never played much of a role in high path AI.

Man: But I know that (unintelligible) looked at from the standpoint of them you know (unintelligible) in their (unintelligible) or something (unintelligible), but they are really close when you talk about (unintelligible) all of these facilities. Are there any of them not solved thus far (unintelligible) about 300 yards or so away from the lake. All of these facilities (unintelligible).

(Lee Ann): All I know on that question is that DNR in the Minnesota sampling in the wild birds are just found dead. So are they actually doing some active surveillance in the wild birds?

Man: I think they are (unintelligible).

Woman: We were just last week talking about wildlife services going in and gearing up and starting to do some surveillance in Minnesota, so that's the (unintelligible).

Man: (unintelligible) without the samples. I don't know (unintelligible) sampling but they hadn't found anything, but that doesn't (unintelligible).

Woman: The rumor is also that (unintelligible).

Man: Just what?

Woman: That they just sampled (unintelligible).

Man: I'm sorry, (John). Go ahead.

(John): No, I felt (unintelligible).

Woman: I hope so.

Man: And I saw a press release last week where they were asking turkey hunters to submit samples or people would allow their birds to be swabbed (unintelligible).

Woman: Yeah.

Man: But I don't know whether this (unintelligible).

Man: I don't know. I mean my guess is that it would if it was domestic turkeys, but I can't say for sure. I don't know what their opportunities for exposure would be, but I have a big question for you (John) and (Lee Ann). So what can this committee do to assist with the response in this and future similar situations?

(John): Well (unintelligible).

(Lee Ann): The first thing that comes to mind is if there are veterinarians that could participate in the response (John), then (unintelligible) or other mechanisms. And this is my own opinion and just saying that we went from 89 last night to 101 today is that we are going to need more people. We are going to need more boots on the ground. And I think that to encourage individuals where they are able. I recognize it is a hardship, but we need personnel.

Man: So I just - this is sample (unintelligible) one, but I just talked with (John Beck) about this. But I registered for (unintelligible) on USA jobs in September of 2013 and never heard anything back from USA jobs. And so then, I asked my area coordinator to look into it, but he wasn't able to really find out anything. So just talking to (John) I said - because he said the notification had gone out to (unintelligible) and I he should have my email. And he just told me that they stopped recruiting people in June of 2013. So I should have been in the system as of - it was prior. (Unintelligible) for a time, but I mean isn't that a little bit of a flaw in the system if anybody who has registered after June of 2013 is not being contacted? That's two years.

Man: Yeah, (unintelligible).

Man: I have a little experience with AIs so.

Man: (Unintelligible).

Man: I don't know why (unintelligible).

Man: I don't either. (John) was going to check on my own situation, but I think a larger issue is how can you plug these people back in again if you are looking for people. And there are people out there. I mean there are plenty of people out there who are in flexible situations who could either be deployed for - I realize that - he says there is a training session next month in (unintelligible) right. So I assumed that I was in the system and I would be contacted and I was not, so that's one way that - I mean that is (unintelligible) but maybe it isn't.

Man: they also need more permanent people (unintelligible).

Man: Yeah I know. Well they said they were looking for people to be temporarily deployed for a year.

Man: Yeah.

Man: So there are those people out there too.

Woman: And I think that in - we don't have the answer, but it is - we don't know why it is (unintelligible), but I think I heard some conversations earlier about there is really just the need to focus on fowl security in the industry and make sure that you following - there is good fowl security (unintelligible) protocol.

Man: So it may not (unintelligible).

Woman: They could be, but (John) let me give you an example of some of the stories that you hear. It's that on a multi-house premise, you are sometimes lucky if they put (unintelligible) on. However, they don't change their boots and they don't (unintelligible).

(Annette): This is (Annette). Can I ask a question?

Man: Sure.

(Annette): I was wondering. I know I saw one state or I think two states declare an emergency, but I am wondering because the (unintelligible) state of chapter resources. I know every state is different, but a lot of states have very deep response resources. And I am wondering if - I mean it seems like those local resources should be tapped into a lot more.

Especially the one thing that I worry about is that we are getting behind on this tactical epidemiology. In other words, understanding contact premises early on once a detection is made. Do you know the degree to which states are reaching out to their state emergency resources?

Woman: I am not aware. I think Minnesota declared an emergency. I am not sure who the other state is, but...

Man: Wisconsin.

(Annette): I think USDA needs to ask the states to step it up. We would in California. I guarantee that.

Man: Yeah the states do have a number of employees already deployed. It is (unintelligible) because I know that they have their emergency operations engaged, but I don't know at what all levels they are engaged or how many people. But they have those people engaged.

What I was going to say though (Lee Ann) is they are implementing actually the (unintelligible) system of boots so that (unintelligible), (unintelligible) and (unintelligible). As you enter a house, you step on a disinfectant pad and those boots come off. They (unintelligible) and if they are not wearing their boots around the house. Even though they were many wearing boots (unintelligible), they had foot baths of disinfectant in many of those houses. The question is (unintelligible).

Coordinator: Excuse me. It seems as if we have dropped the main feed line. Hopefully they will call back in. Please stand by. Thank you.

(Don): Hi, are we still waiting for them to call back in? Is anybody else on this call still?

(Annette): I am. (Annette) is.

(Don): Okay, hi (Annette). I am (Don). I had a question for (Lee Ann). I hope they come back.

(Annette): Yeah, it's an interesting conversation.

(Don): Yeah, bad deal with what is going on though.

(Annette): Yeah (unintelligible). It's normal. It's just frustrating, especially if you are a company and losing money on chickens or turkeys.

- (Don): Yeah you know my business is on the east coast mainly and I hope she is wrong and it is not flying overhead already, but I expect next fall it will be anyway, so it's a matter of time. But you know there is something different. I mean there are broilers and broiler graders in and amongst those turkeys in Minnesota heavy and none of those are going down. And you know we are not the kings of biosecurity. I've got news for you, so...
- (Annette): Yeah, I think it is - yeah and the studies they are doing right now. I think we are going to start learning a lot more. They are finally getting on what - maybe it should have started a couple of weeks ago, but...
- (Don): Yeah and it could be an infectious dose deal, but you know it is a part of it. But you know they need to figure out the introduction and figure out a - some kind of intervention because you know gearing up to kill more is not the answer. We've got to stop infecting these closed houses, so...
- (Annette): Well I am sure that turkeys are more susceptible. And if I - maybe you know, but what I have - from friends I have with turkeys that work in turkeys in Minnesota. They've got a long history of low path AI introductions.
- (Don): I know the infectious dose is a vital (log blower), but you still can't tell me that no chickens are getting exposed or I don't know. And maybe their (unintelligible) side is they've got more risk of exposure, because I know most of the chicken houses are fully enclosed, solid side wall kinds of deals. So you know I don't know.
- (Annette): Yeah one of our - we have - I am in California here and we have two flocks, well three, well two. One turkey flock was - actually that was a low path. The high path had open siding and they were closed at the time, but it could be open. And you know what? We are like 90% sure they drove it in on a tractor

because they've got all kinds of (unintelligible) security that when they turn the litter you know one slip up and there was water right outside the house.

Coordinator: Excuse me, this is the operator. I did receive a call from the host that we will have to disband the rest of the conference due to there was so much static on the line that they had to disconnect. So they are basically just wrapping up the conference and they wanted everyone on the phones to know that you are not really missing a whole lot at this point, but they did have to disconnect from that conference room because it was so much disruption in the conference room.

So tomorrow's conference, hopefully it will be a better sound quality and they are going to be working on that in the meantime. So again, this conference has ended and you may disconnect at this time.

Man: It's kind of like the consensus is not yet there on how to fund it. Or the idea on how to fund it is not there yet. And that's, you know, something we need to do.

And I guess the last slide -- I'm just going to side it, the slide is going back to the top where, you know, you got plans, you got policy. You know, infinities are driven by objectives, right?

You've got objectives and incidents. But your objectives can only be achieved if you have the capability. And right now we're going through, as Dr. (Clifford) said, you know, a higher path AI outbreak where, you know, the industry and the States and the USDA are working very hard to contain and control it.

We're at the point now that even, you know, Mother Nature in (flendavirus) don't bet against it. You know, we don't really have the vaccine - it's been discussed that by using a vaccine in Minnesota that we, you know, we have to develop the vaccine there, I think, to have a highly efficacious vaccine for this outbreak. Because Mother Nature changes.

And my only point is this: you know, we've went many years - we waited 18 years for you know the H5N1 to come over, and it did come over. It came over in the - none of H5N1 was - H5N8 now it's H5N2. But it's a very serious problem that we're all addressing very hard right now.

And my only point is that we haven't had FnB, you know, forever. You know, what - four generations, 80 years. It doesn't mean it can't happen next week. On top of HbAI.

So you know, I think the - again, it's kind of an obvious statement that you know one of the tools we probably need to sit down and seriously consider, you know. Folks want to lobby for the government to pay for it. That's their business; their pursuit.

But you know, in the event of an outbreak -- FnB vaccine, we're probably going to want more than we have right now. So I think that's probably a good consensus statement. That's all I got. Actually, (Rolf), do you have anything?

(Rolf): No, that's it.

Man 2: Well, let's say you could get the funds for five years. Then on the sixth year, what are you going to start - how much do you think you'll throw away? (Looks) the shelter.

Man 1: We'd sell it back to the manufacturer. We'd get it in a buy-back. Many of these could be used on the world market. Something of them can't. But the ones that can't, that might give more of a problem, but a lot of the other vaccines, you can get on a five-year replacement cycle.

Man 2: (Unintelligible).

Man 1: (You're the only one I do like.) Well, yes, you have waste. Unnecessary waste, definitely.

Woman 1: So we know that that \$150 million is an estimate? Where are we on actually thinking whether it's a counter-proposal or whatever to understand what the, you know, if that's the right number?

Man 1: We have a request for information that's going to go out. The, you know, on the open market. I think for a smaller number, kind of those for those three numbers that were proposed - make it a small - make an attempt, you know, from 2 million to 10 million or something like that. So what Dr. Roth's kind of proposing to even the higher one.

But we'll see -

((Crosstalk))

Man 1: ...it's not a request for proposal for your basically what it would cost of a vaccine manufacturer to view such a bank - for banking, and then getting to the question of well, how would you rotate the vaccine or import and...

Woman 1: When do you expect that call to go out?

Man 1: Very shortly. We've been slowed down a bit with the AI, but it's a good question, and at this point it's not even a request for proposal because we don't have the money. There also has to be a request for information, but we think there are vaccine manufacturers some of these could come and pay attention to it.

Man 2: Excellent.

((Crosstalk))

Man 2: Well good news is always received well.

Man 1: Yes, I think we are. I know that my good friend, Dr. (Clifford) joined us. Hey, (John).

((Crosstalk))

Man 1: So, (John), did you want to say a few words to the group or, you know, we're just, we're at the end of - obviously - at the end of (John) and (Jim)'s presentation and we're going to launch into discussion and deliberation of this topic and recommendation. It's certainly...

(John Clifford): Why don't I just thank everybody for being here. Sorry I wasn't here this morning to welcome you. I was off trying to get more money for high path AI.

Okay, that math, I'll just - I know we're probably talking about FnB.

Woman 1: That's right. You could (operate). That's something that I found (may not be up to grade.) So it might as well be this (unintelligible).

(John Clifford): Now I like got these cooperative nondescript - just attempt to (ampules) that NVSL that were confirmed for high path maybe influenza H5N2 and two wild birds - a goose and a duck - in Kentucky.

They (find it was down in the fact) that distance in wild waterfowl. It's out there. And so I think the difference here with this particular - I don't know if you have that map back up there...

Man 1: Yes, just hit to the end, (John), enter a couple of times.

(John Clifford): I think - now before when we had - when we talk about containing a disease situation...

Man 1: That's fine.

(John Clifford): ...you know, when you look at trying to contain a disease situation, you can put a -- kind of a imaginary lines around it. You think about that being your containment area and containing movement in and out of there. This situation at high path, you have to think about everything around you being contaminated. Even on your facility. And that the house itself has to be the area that is not - or that is safe. That you keep safe by security. So you walk from house to house, or you do anything around the house, you got to consider that to be contaminated.

(Unintelligible).

(John Clifford): It's not just about poultry trucks driving up and down the road - serious. And now up to 101 direct approaches.

Man 2: So what was the most in any given year before this? (Focuses)

(John Clifford): What was the most in any given year?

Man 2: In the last 10 years.

(John Clifford): What makes this different is this is the first time a high path AI has adapted itself to the wild bird population.

Man 2: Okay.

(John Clifford): The wild water fowl. Dabbling ducks there - it looks like getting geese now too. So it has moved worldwide, bird-wise, in these flyways.

You've got it through the Asian - probably across Asia, down to South Korea, to North America. H5N8 - that H5N8 is very closely related to H5N1 in Asia that everybody was trying to deal with years ago. Which is still there. But that H5N8 first adapted itself to the wild waterfowl and now we have two re=assortments here in North America - H5N1 and H5N2.

I don't know what the future is going to bring, but this is a very serious situation. You can't just say well I got it contained in Minnesota or I've got it contained (unintelligible) - it can pop up anywhere anytime.

A lot of security that we've measured that we had in the past - reflective, or not working, obviously.

Man 2: So do you think that you can continue to kill everything that is affected?

(John Clifford): You need to kill everything when it's affected because if you don't, you're allowing the virus to continue to spread, and mutate and change. And it's a human concern. It could become more pathogenic; it could become less.

Every time it moves through those houses, it mutates to some degree. Even very small slight to...

Man 1: What's the mortality on some of these flocks?

(John Clifford): Turkeys it's 100%. And then...

Man 1: Five - you said five, six days to death?

(John Clifford): Well, once they show clinical signs.

Man 1: What about the layers?

(John Clifford): Layers are- I think it's about 60% of it.

Man 1: Yes. It seems to be a little bit slower with the turkeys. We're just starting to get...

(John Clifford): The incubation period with the turkeys is about - what -14, we're saying about 8 to 14 days; isn't that what they're saying?

Man 1: Yes. I mean I've heard - different estimates, you know.

(John Clifford): Once they show clinical signs, they can die.

Man 1: We are catching positive birds on active surveillance in film. They actually come out with them flying. That's I expect with the fade on them.

(John Clifford): The incubation period?

Man 1: Yes. But once they do that lift from normal mortality to the increased - depending on how the house is set up, it very rapid.

(John Clifford): This - difficult.

Layer flocks, for example. Turkey flocks - before birds we can go in and calm those birds. Depopulate, compost inside. There's layer operations in Iowa that have millions of birds, each number's I have. We dosed all that material. How you get those birds real quick. It would take us literally probably two-to-three months until those birds are all dead.

In Iowa they had?

Man 1: Yes. Did they - the first...

(John Clifford): In all the houses?

Man 1: They're left with 1% of the birds around.

(John Clifford): All the houses?

Man 1: Yes.

((Crosstalk))

Man 1: Those are a combination of the virus killer...

(John Clifford): Excuse me?

Man 3: How many million birds?

Man 1: 3.8 million. 3.8 million birds.

((Crosstalk))

Man 3: ...except 1% are dead. Of all the houses.

Man 1: And we just got that yesterday night.

((Crosstalk))

Man 1: And they have our (ecology) topic. The last few birds, but again it goes back to when we found the virus.

(John Clifford): Yes.

Man 2: So it's - are they trying to kill them off, or they just die?

Man 1: There's - if we don't depopulate them rapidly they will just die.

(John Clifford): But it's how do you kill them and those - it's no relation, you got to use CO2. You got to pull them out and you got a CO2 chamber - 3.8 million birds. It's a lot of birds carry to a CO2 chamber.

Man 1: Very interesting disposal problem.

(John Clifford): You've got 20,000 tons - yes, 20,000 tons of manure.

Man 1: Yes.

(John Clifford): All that's got to be handled properly. It's going to cost - run into the millions and millions of dollars to just clean and disinfect it. Millions. This is very complex. Very difficult issues.

Man 2: Do they have any idea on the slow (unintelligible)?

(John Clifford): And we've got three more chicken plucks in Iowa and one that's almost as big as this one already.

Man 2: For months they've been saying in the swine industry if poultry goes down and you get all the poultry in this country - which is going to depress the swine market too. And that's why the futures have been banging around so bad last year. Wait fall and winter. Our large countries shutting off now to trade.

(John Clifford): Well, certain ones have been shut off, yes, ever since we started getting these outbreaks in China and South Korea, South Africa. And other countries have been pretty good about advising on a State level basis.

Woman 1: I know we have turkey breeder flocks. But (John), do we have chicken breeder flocks that have gone down?

(John Clifford): Not that I've noticed. Turkey breeders (unintelligible).

Man 1: You're paying right now what - 90% of fair market value? Is that the...

(John Clifford): No, we pay 100% of the fair market value, but that's the value of the bird at the time. In other words, a day-old (pulp) - day-old (pulp) value versus (right pulp value). Paying for the cleaning, disinfection and disposal. You're paying for a lot of things.

Man 1: Right now?

(John Clifford): Yes.

Man 2: But what does it cost you to pay for this street cleaning thing?

((Crosstalk))

Man 1: Probably.

Man 3: It will come close to even \$9 million with everything.

Man 1: That would be the total cost?

(John Clifford) The cost - the total cost would be about...

((Crosstalk))

Man 2: ...about three weeks at a time.

(John Clifford): It could be decided certainly, yes.

Woman 1: There's a rumor that you just pay for the unaffected birds but the affected birds aren't being indemnified.

(John Clifford): Well, that's not totally correct. This came from - you generally (trim) those birds after a presumptive positive whether they're - so...

Man 1: Had their pain managed and immediately inventoried.

Man 3: The notifications are so important for everyone. All fee is for a new state. And based on complications, so it's like if your state hasn't had it, then all (unintelligible)

That is that if you haven't had any avian classification, there should be two separate pathfuls: one online but one going to NdfLM. So the relation being the lack.

One for state, then determine affected. And again, a lot of these notifications aren't just for this - the copy we send to Dr. (Clifford). We return notification demise you know any impact it could have on other states surrounding that state. Then once the state is, you know, actually infected - and yet they haven't new starts setting for something positive, then you're more in an outbreak situation.

But we call a bad situation people are coming to us - you know, 10 days after the event. That's not the best of a state official or the industry.

((Crosstalk)).

(John Clifford): That's clarification, I've been saying.

((Crosstalk))

Man 1: Are we getting dead birds.

(John Clifford): Once we get a presumptive positive and do an evaluation, period.

Man 1: You're right. You're playing...

((Crosstalk))

(John Clifford): You take it from the animals alive at that time.

Man 1: So for instance...

((Crosstalk))

(John Clifford): And as quick as you can do that...

Man 1: So the incentive is to get the - all verifications are done and then if the indemnity appraisal is done, if all those birds die before we get out there to talk with them, we pay for it. Based on the time of the appraisal, which is based on the verifications across the board. So we do in fact pay for dead birds, because they die before we can populate.

Man 3: When you send the sample onto the lab, you know, on a...

(John Clifford): Things on the line 4 to 5 hours.

Man 3: They're basically picked out by the scanner.

Man 1: They're close enough and so I talked about the Pennsylvania outbreak this morning. And just to give you an example of how the diagnostics have come

after 30 years - in Pennsylvania in the early '80s you had to send the sample into the lab. They had to recover the virus, which took several days. Then they had to inject the virus into eight birds and six of those birds - six or more of those birds had to die in order for that - we called it HPAI.

And in the meantime, the birds just sat there and went through the disease and died. And now, at we can get a diagnosis. And after, I'm not sure that (Allen) we're getting an indemnity based on presumptive positives. Are they - you are?

Man 3: Yes.

Man 1: Which wasn't - so it would be a week - a couple of weeks would go by and by that time all the birds were dead. Hit by the owner and buried.

Man 3: Yes, and if the virus moves very quickly, like if there's other ones been even hotter; more lethal than this one.

Man 1: So we've kind of you know, morphed from FMD into AI and we haven't going to get free to pitch (II) but do you want to...

Man 3: Well I don't know - maybe (Ted) and I shouldn't be...

Woman 1: (Unintelligible).

Man 3: Three hours that we could spend, you know - but it's okay because...

Man 1: It's okay for me but it might not be okay for...

((Crosstalk))

Man 2: So in the grand scheme of things when these things get going in the past, how long did they last usually - are we talking - we don't know that?

Man 1: If this virus circulates in the wild birds, the way it is, they all shake it like a multi-year or longer bench...

((Crosstalk))

(John Clifford): It doesn't mean it would be. We all...

Woman 1: And so back in 1983 - it was 1983, 1984 and depending on whether you raised 360 affects (unintelligible) we're up to 400.

(John Clifford): We're already at 100. But when the weather gets hot, it's not likely to continue.

Man 2: Eighty-three.

Man 3: And in Pennsylvania, it pretty much stayed there. I mean it was...

Man 1: There may have been an incursion into Virginia, but...

(John Clifford): But it wasn't no moving by wild water fowl.

Man 1: No, it wasn't. Poultry.

Man 3: And then it popped up again in '86.

((Crosstalk))

Man 3: ...by waterfowl.

(John Clifford): You can't predict where it's going to hit next. All you can do is indicate places that has 10,000 lakes like Minnesota. It's probably a high-risk area.

Man 2: And what's the risk for swine?

(John Clifford): The swine can - they get the virus - it could (reassert) (unintelligible).

Woman 1: I know we talked to ARS and ABC about doing some studies to see if they're susceptible.

Man 1: I think (Gerald's) picked...

Woman 1: It's already been picked? Okay.

(John Clifford): I don't think...

Woman 1: Been picked at ARS?

((Crosstalk))

(John Clifford): I don't think you're going to have a problem with pigs unless a really serious (unintelligible).

Man 2: It has been no people concerned.

Woman 1: Yes, pigs haven't. So what other animals on the farm are susceptible to AI? I mean, pigs, and you know. Are there any other ones that we know of?

Man 1: The other species being tracked apparently - (DEC) is tracking (people.) So they're doing a very good job with the state's local help. Right now there have not been any documented transmissions (unintelligible) to people.

Woman 1: I mean, they're targeting flu viruses.

(John Clifford): ...other species (unintelligible).

Man 1: Canine.

(John Clifford): They're not all the same strains.

Man 2: Well, when I was in China for three years, you'd go by ponds full of ducks that are (unintelligible). I mean, but just to talk a line by a pond, there was big massive amounts of ducks that are not wild.

Man 1: Yes, it's - high path was normal for that amount of water. And they can move in the water trail but it doesn't normally (unintelligible).

Woman 2: Well, what are we doing with the manure from those farms? So I'm in Minnesota. I mean, this time of year, a month ago we'd see big piles of turkey manure that crop guys would contract back and forth and use as fertilizer.

Man 1: You know, you - traps that are infected, maybe they will have a flock plan so likely the fatality is comparable so the composting is (fairly stored) outside. They'll have a plan for the manure as well. But you're suggesting that they compost the source of the infection, right?

Man 3: They compost it.

- Man 1: Ready to compost. If it's composted correctly, it meets the requirements.
- Man 3: If the manure (unintelligible) in the compost environment.
- Man 1: What about the prep?
- Man 2: We had a fellow in Worthington about three weeks ago that broke right by town. I talked to him and his wife and - they have to hold it in the building until September. Long time.
- Man 1: I don't want to get too far astray off of FMD unless -
- Man 1: Now you're all been and (Leon) you've still got your presentation that we're going to have you give. Do we want to continue? I think we probably ought to -
- Woman: (unintelligible).
- Man 1: You're staying around too; can you stay around a little bit?
- Man 3: Here he is.
- Man 1: Oh, great. Okay. So, (John)'s here for the duration. And so we can -
- (John Clifford): I'm here for today.
- Man 1: So we can have our FMD discussion. It would be really valuable to have your here in addition to (John) and (Jim), so why don't we do that. And then take a short break, launch back into AI. Sound okay?

Woman: Okay. So it's not for timeframe we're talking other - start the conversation on FMB then in 15 minutes...

Man 1: Yes.

Woman: And we can always revisit.

Man 1: Yes.

Woman: Because we don't want - I know that (John) and then it's questions at the end (unintelligible). We can always come back.

Man 1: Yes.

Woman 1: Keep this as discussion.

Man 1: Let's do that until 3:15 or so, take a break, and then come back to talk about AI again. Good?

Woman 1: I'm thinking more of 3:05.

Man 1: 3:05? 3:05. All right. So, you might have already done this, but you might want to take a glance at our recommendations from last meeting which have - there are a lot of recommendations there on FMD. And a (bird thing) from Paris.

And so- I don't think we want to rehash them at this point, although we may, you know, we may veer into that a little bit. But the - there are some focus questions here that we've gotten this time around from APHIS to consider.

With response to - respect to putting out that these preparatives and vaccines. So I suggest that we just got a great update on American Foot and Mouth Vaccine Bank and what we need for visibility and what we'd like to have for capabilities.

So why don't we have that discussion starting out with question #1: Is your industry willing to purchase FMD vaccine to build a fully functional pathogen bank recommended in the Committee's 2014 recommendations?

Woman 1: Dr. (Heimer)?

Man 1: Yes.

Woman 3: Before I have something for that too, but I have a question and this might be directed to you, since you're import-export, right?

Man 1: Yes.

Woman 3: And we were talking earlier about the where the PED virus came from, and they were talking about containers maybe of feed from Asia or whatever. And I'm a little concerned that you've announced that we're going to be changing (unintelligible) South America, from Brazil and those areas coming in. And I know that they're still under a (JAO) audit and that's not done yet, but you're still talking about bringing that in, and I'm concerned about things like containers coming from there with FMD or something. I mean, as a producer, it's going to hit the hardest no offense to the rest of you in this room, but I'm the one that's at the bottom line here. It concerns me that you're going to open that up when like that study isn't even done yet. Is that a done deal?

Import-export? Dr. (Clifford)? Somebody

((Crosstalk))

Man: ...Brazil rule and the Northern arc...

(John Clifford): Because we bring it; we'd allow them to bring beef in because it's - there is no scientific evidence to support not bringing it in and you know, we're not going to get FMD from Brazil by bringing in boneless beef. We're going to get it from illegal movement into the country.

Man 3: Do they go...

((Crosstalk))

(John Clifford): There's no FMD virus circulating currently in Brazil that anyone knows of or in the Argentine. For that matter, they haven't seen circulation of virus in any country in South America for two years. Boneless beef is safe.

((Crosstalk))

Woman 1: I know you don't want to...

((Crosstalk))

(John Clifford): I understand the fear of the industry, but the science doesn't support you. Do you know we've been bringing in beef all along from Uruguay? Why aren't you worried about Uruguay?

Woman 1: Brazil is the one that worries me.

(John Clifford): Why?

Woman 1: Because of the reports that I've heard from people who have been there on what they've seen.

(John Clifford): Like what?

Woman 1: Lack of protocol that should be followed, that's not. That's...

(John Clifford): You know, I've heard about these same things. We used to have a group - (Ross Wilson) and folks went down there. I can't remember who all was in that group - go talk to (Ross). You know who (Ross Wilson) is? (Tarrytown). Ross is with the Southwest Cattle (unintelligible). They've put it through dust and what he saw, he - it made him feel much more comfortable. Much more comfortable.

Woman 1: Well that's good.

(John Clifford): You've got, I mean, you've got several things here, you know, faith cards. First off, if animals come into the slaughter facilities and they go through the pre-mortem inspection. Okay? They have lesions in the mouth or mouth lesions. But let's just say for example, (knock). Then when they're slaughtered through the process, you go through the post-mortem inspection. Now if they have active FMD lesions, you're going to find it, okay? They're going to notify people. They're going to take action. They're not just going to let that go through. You can say, well can we trust Brazil? Well can Brazil trust us? And anybody - should anybody trust you? Should we trust any country in the world? These things are based upon certain levels of standards that we do. Though I understand people having concern about the trust, but then, we're

required to be boneless beef that we ask to be de-boned. And the ph in that meat falls under which percent?

Man 1: Ph of 6.

(John Clifford): Six. Kills any - or denatures any virus present. They check every carcass to make sure it falls under that. And then the product is shipped into the US, it goes into an I-house and every (unintelligible) I-house. They don't check every container; they check - they have like a numerical model that tells them where to look and pick

END