Transcript for FDA Media Briefing Salmonella Outbreak Involving Certain Types of Tomatoes

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Coordinator:

Hello and thank you for standing by. All lines will be in listen only until the question and answer portion. Please press star 1 on your phone to ask your question. Today's call is being recorded. If you have any objections you may disconnect at this time.

And I would like to introduce your host Michael Herndon, so please begin.

Michael Herndon: Thank you very much. Ladies and gentlemen welcome. I'm Michael Herndon with FDA's media relations staff. Thanks and welcome to this briefing on tomatoes and salmonella and the tomatoes and salmonella outbreak.

Our two speakers this afternoon are Dr. David Acheson, Associate Commissioner for Food and Dr. Robert Tauxe, Deputy Director, Division of Foodborne, Bacterial and Mycotic Diseases with CDC. We also have FDA subject experts available today. They are Ms. Melinda Plaisier, Associate Commissioner Office of International Programs, Mr. Steve Solomon, Deputy Director, Office of Regional Operations, Ms. Roberta Wagner, Acting Director, Office of Compliance and that's in our Center for Food Safety and Applied Nutrition. Now we will have a brief question and answer segment after the opening remarks but at this time I will turn it over to Dr. David Acheson.

David Acheson:

Thanks Mike, thanks Mike. This is David Acheson, good afternoon, good morning to everybody. We'll follow our usual format of CDC first providing their update - update and then back to FDA where there are a number of

points that - that I want to make in terms of - of the ongoing investigation. So I will turn it over to Dr. Tauxe at CDC.

Robert Tauxe:

Thank you very much David and let me say also thank you all for joining us this afternoon or morning. As of June 30th, 869 cases associated with this outbreak have been reported to CDC. There are 170 - I'm sorry, 107 have been hospitalized. These cases are reported from 36 states and the last most recently reported case began - the illness began on June 20th. The number of states and the most recent onset have not changed since yesterday's report.

Tomatoes are the lead suspect source in this outbreak because an investigation in two states early in the outbreak showed that persons who were ill with the outbreak strain of salmonella were much more likely to have reported eating tomatoes then were well persons in the comparison group that was - were interviewed at the same time.

As mentioned last Friday, CDC has broadened its epidemiological investigation to be sure that the assessment encompasses food items that are commonly consumed with tomatoes. We are now conducting a new multistate study comparing where ill and well people remember eating and what they are focusing on persons who became ill on June 1st or later. While CDC is broadening the scope of its case control study there is no change in the FDA and CDC recommendations related to tomatoes.

I'd like to say that the process of investigation is complex and often difficult and when CDC and the states conduct a foodborne outbreak investigation, it's like a - a detective trying to solve a case. We often have to rely on peoples memory about things that are not very memorable such as what they ate last week or the week before or the week before that. People may remember many things but they may not remember everything they ate and they may not

realize or remember that many of the things that they are have many different ingredients. So our information is gathered through interviews with people who got sick as well as other people who did not get sick. It might be family members or neighbors or other people that are in the area. And then we compare that information. This process often produces a number of suggestions or leads; in the case it revealed a strong association between consumption of raw tomatoes and cases of illness.

Let me turn the floor back to - to the FDA.

Michael Herndon: Dr. Acheson?

David Acheson:

Thanks Rob. This is David Acheson again, Associate Commissioner for Foods at FDA. I want to make a number of important points on the call today. And I want to begin with - with the expansion of the investigation at FDA. The FDA has expanded its investigation into the cause of the salmonella St. Paul outbreak, which has so far has focused solely on fresh tomatoes and the expansion is going to include additional produce items that are commonly served in combination with tomatoes. As you heard from - from CDC the tomatoes are still considered to be the lead suspect and are our major focus. And contrary to some of the media statements that - that have been published suggesting that the Federal Government are saying that tomatoes are no longer linked with this outbreak, that is just simply not accurate. So I want to repeat, tomatoes are still the lead suspect and are a major focus, they are still being investigated and - and expansion will continue to precede tomatoes but will include additional produce items that are commonly served in combination with tomatoes.

As you've already heard a little bit from Dr. Tauxe expansion of the investigation is to get new information that's been gained by - by us and by the Center of Disease Control over the weekend and we have to go where the science takes us. Right now based on that new information we're adding some new paths and inquiry to the scope of our investigation and it is simply us following the - the science as it evolves in an ongoing situation such as this outbreak.

Second point. What does it mean in terms of the methods that we're going to use? Well as I've said before with tomatoes the investigation will continue to focus on the entire production chain from farm to consumer. Examining the paths that have traveled by these produce items from the farm as they make their way to consumer. And in particular our investigators as they have with tomatoes will - will try to determine spots along that route where the various different types of fresh ingredients may come into contact with each other and then it may have become contaminated.

Some of the possibilities for example are whether multiple products are being grown on one farm or if there are multiple products grown - grown on adjoining farms or farms in a particular area that happens to be using a common water source that could possibly be contaminated as part of the investigation. Another possibility is that multiple products are contaminated at a common distribution or packing or shipping site, again, part of the questioning and part of the investigation.

And - and finally the possibility that one or more products actually are coming into contact with each other leading to a cross-contamination situation. So that the - the key point here is that the methods need to continue to be looking down the whole length of the chain from - from farm all the way to consumer looking for all possible explanations as - as to why this outbreak is - is ongoing and whether other products are possibly incriminated.

Third point I want to emphasize is that this continues to be a cooperative multi-level effort involving the Federal Government, state regulators, local health authorities and industry. We in CDC are working with other federal agencies, state and local governments and - and the industry to expand the scope of this investigation.

Another important thing that we are doing as part of this expansion is that we are in the process of activating the food emergency response network, that's otherwise known as FERN, F-E-R-N, that's the food emergency response network that is now - is now being activated and will be asking labs across the nation to expand their testing to - to take into account the wider type of foods that - that we're focusing on and the increased volume of testing that we're going to do which will continue to be on domestic and imported products.

What this does is it increases our lab capacity beyond that just of FDA because the FERN system involves a lot of state labs to come online to help us with this. We've done this before, we did it with spinach to some extent and we did it with melamine. It allows these labs to be using common methods that everybody's using the same system so thus it - it - it bringing all these labs online. There is a central electronic reporting system that allows us to monitor us what's going on. So activating the FERN labs essentially is something that was built in following the - the 911 to - to provide us with flexibility to extend our testing capacity. We've used it before and we're going to be using it again in this - in this situation.

We're also working with industry to examine records for distribution of not just the tomatoes but some of these - these products that are - are commonly consumed with fresh tomatoes again looking back to the - to the onset of the outbreak.

I think we also need to address, my fourth main point is we clearly need to be asking ourselves what do we need to be doing to reduce the likelihood of a repeat of this in the future. I think many are already asking that question. Why is it taking so long and what do we need to do to - to address that. And there's - there's three points I want to make under that heading about how do we reduce the likelihood of a repeat of this in the future.

Firstly we at FDA have - have begun exploring the possibility of creating an interagency task force to ensure that the - the food protection efforts are - are fully coordinated between the - the various federal agencies as well as the state and local governments because local governments and state health departments are extremely important in identifying the causes of these illnesses. A lot of the work that CDC does is dependent on that. This is just an idea that FDA is working up at this point but there's - there's very - very clearly a need for the regulators to look at how can we - how can we reduce the likelihood of a repeat.

Second important area is - is the issue of corporate responsibility. We've said many times and I know the industry recognizes very clearly but ultimately it is the industry's legal and ethical responsibility to ensure that the food they provide to consumers is safe, wholesome and free of contamination. The pace of this investigation has been frustratingly slow and - and FDA investigators have been working hard to try to move this along as fast as possible which essentially as we've discussed on previous calls it involves visits to multiple sites to get records. And typically these records are paper. And, you know, frankly I think one of the important questions that we need to - we need to address is - is in the digital age should we still be using paper and pencils to try and figure these things out. And I think it underscores the critical need for industry to modernize the practices and establish electronic record keeping that's going to enhance data retrieval systems and - and - and frankly improve

traceability. It certainly seems illogical at this point that - that we don't have a more expeditious way to - to deal with - with traceability's.

Finally, Congress. We also need Congress to act on FDA's request to give us the authorities we requested last November when we - when we introduced our food protection plan. We - we said many times that the - one of the best things to do is to - is to build in preventative control against foodborne illness and the food protection plan called for that authority last November. We need to focus our efforts on prevention and our ability to require preventative control is dependent on us gaining that authority. So we need to continue to work with - with Congress to - to drive that.

Finally where are we on - on consumer messaging? The - the message to consumers has not changed as - as Dr. Tauxe said. We're - we - we still have not associated grape, cherry or - or on-the-vine tomatoes with this outbreak and they can continue to be consumed. And I think it's very important to recognize that things can and do change rapidly in a - in an outbreak situation. And as we evolve with this - with this expansion of the investigation there'll be new science coming online, there'll be new information coming online and the FDA and CDC obviously will - will follow the science and update consumer messages as needed depending on the new science. But for now as of - as of today that message remains unchanged. Many have - have said well why aren't you going to discuss what is it we're expanding our testing to. And frankly I think it would be irresponsible of us at this point to say specifically where we're expanding this testing simply because at this stage it is the beginning of an expansion of this investigation. And as I've said if - if significant information that un - unfolds that requires us to change our consumer messaging we will most certainly do that.

So with that I would like to pass it back to Michael Herndon for some questions.

Michael Herndon: Thank you Dr. Acheson. At this time ladies and gentlemen we'll take your

questions. We - we ask that you please limit yourself to one question and one

follow-up. And please state your name and affiliation. Operator we'll take the

first question.

Coordinator: Thank you. Again please press star then 1 on your phone for your question. To

withdraw your question press star 2.

Our first question comes from (Allison Aubry) with NPR.

Michael Herndon: Operator?

Coordinator: Ms. (Aubry) one moment please, I'll double check your line. Ms. (Aubry)?

(Allison Aubry): Yes.

Coordinator: Thank you.

(Allison Aubry): Hi, can you hear me now?

Michael Herndon: Yes.

(Allison Aubry): Oh, oh okay hi. So the foods associated or commonly eaten with tomatoes

what would those be radishes, carrots, lettuce and aren't those things also

eaten independently when they have shown up before?

David Acheson: This is David Acheson - from FDA. Yes absolutely there are some of the

things that are eaten with tomatoes can be an independent.

(Allison Aubry): But you are talking about radishes, carrots, lettuce. I mean you're talking

about more fresh produce those would be the three things that would come to

my mind. Are those the things you're looking at?

David Acheson: We're talking about expanding in relation to produce items that are commonly

served in combination with tomatoes. I'm not prepared to discuss what those

items may be because as I've said I believe at this stage of the investigation,

which is early in terms of those other items, it would be irresponsible of FDA

to say that.

(Allison Aubry): Okay. One follow-up?

Michael Herndon: Sure.

(Allison Aubry): Activating the food emergency response network, you're just doing that now?

David Acheson: We're doing that now absolutely. We haven't needed to do that because

there's been a lot of testing done. The focus at this point has been on tomatoes

and there's been a lot of testing done by federal labs and state labs as part of

the tomato testing. But the state labs and the FDA labs and other labs are - are

already they are part of the FERN network so in a sense members of the

FERN network have already been - been working on this. The fact that we're

now going to expand the volume of the test to - to a point where in order to do

this as fast as we can, we want to bring as many resources online as possible.

The - it - the now - it now makes a lot of sense to activate the network. Up to

this point it hasn't been necessary.

Michael Herndon: Thank you.

(Allison Aubry): Thank you.

Michael Herndon: Thank you. Next question please.

Coordinator: (Mary Falco) with CNN Medical News.

(Mary Falco): ...with that on Friday which you were - Dr. Acheson, you were very clear that

the focus was on - on tomatoes, the CDC was opening it up - it was very

confusing. Now you're saying that it's more product you're looking at but you

won't specify which even though your earlier press releases have said

tomatoes, raw tomatoes or products that served or had tomatoes in them. So

I'm very confused that you can't be more clear.

David Acheson: Well (Mary) we didn't get all of your question. Could you just briefly give us

the first part of that?

(Mary Falco): I'm sorry, can you hear me now?

David Acheson: Yeah.

(Mary Falco): Okay. I - I'm confused about what happened between Friday's telebriefing

and this one. What did you learn over the weekend that has now made you be

a little more clear about the fact that you're not just looking at tomatoes? You

know, you're still saying the consumer advice is the same, the primary focus

is tomatoes when in your earliest press releases in early June you were saying

raw tomatoes and - and products that were served with tomatoes. I'm - it's not

very clear.

David Acheson: Okay let me - let me try to clarify. This is David Acheson. The initial investigations, the initial case control studies indicated statistically that it was tomatoes and the consumer messaging then as now was there is concern about certain types of tomatoes from certain places. That - consumers can be exposed to tomatoes in two ways obviously. They - they can eat a tomato as part of a salad or though they could eat a tomato as part of some other dish that's - that's got tomatoes in it. And - and our press release acknowledged the fact that raw tomatoes are - are frequently used in - in other dishes, pico de gallo, salsa and various other things. So we wanted to essentially get consumers to understand that it was raw tomatoes whether you were eating them as a - as a whole raw tomato chopped up in a salad or whether you were eating them as part of some other dish that included fresh raw tomatoes, so that the message was still focused on tomatoes.

> On Friday it was - it was clear from what Dr. Griffin was saying from CDC that CDC and their state and local colleagues were - were planning to expand the case control studies over the weekend. That's what they did and as a result of that work, FDA is now saying okay we need to expand the investigation. Tomatoes aren't off the hook. Tomatoes are - are still - we're still advising consumers as - as we were before. It's just that there is clearly a need to think beyond tomatoes.

(Mary Falco):

So if I could follow-up you said you can't give us specifics as to what other product you're looking at, other forms of produce, but you - you're telling us the most recent ill - or the CDC's telling us the most recent il - illness was on June 20th without reveling location or anything. What did that person consume?

David Acheson: From - from an FDA perspective there's been a lot of question about this and again in reports in the media well it couldn't possibly be tomatoes

because nobody harvests tomatoes for more than six weeks. I - it's not quite your question but I think I want to just address that because I think it partially answers your question. Our recent investigation has illustrated indicated to us that - that the harvesting area in farms are actually growing tomatoes from - from the end of the year from the Dec - November, December timeframe right through to May, June timeframe. So if - if for example there - there was a problem with - with the water supply on that particular farm you could have contaminated tomatoes coming into the system for many months, it's - it's not just six weeks. I don't know where that's come from but - but our investigators getting on the ground, talking to the farmers, looking at records to essentially determine that.

Another point is several years ago in 2002 there was actually an outbreak of salmonella in the US that was - that was salmonella - was salmonella Newport. Turned out these tomatoes were - were grown in Virginia. This - this - they were growing from the first of July right through to November, so the notion is impossible for contamination in six weeks; it just doesn't seem to hold up.

As to - as to what did that person eat on - on the 20th of June who one of most recent onset cases, I'll ask Dr. Tauxe if he knows the answer to that but I know that that information is - is I know essentially the CDC have - have interacted with the states and locals on gathering that type of data. I don't know whether he has data as to that specific point.

Dr. Tauxe, you have help on that?

Robert Tauxe:

This is Dr. Tauxe, yeah, thanks Dr. Acheson. I don't have any information about what that person might have eaten but the general issue is that cases continue to be reported that do have relatively recent onset dates especially if

we think of the typical timeframe it takes for a case to be reported through to the public health authorities.

So with these relatively recent cases some of them occurring after the FDA recommendations on tomatoes were issued this is why we - we say the outbreak appears to be ongoing and that's one of the reasons that the focus of our investigations has expanded somewhat is that we do have fairly recent cases that have been coming in and, you know, the question of what it is they're eating and what - what would be an explanation for these recent cases is - is part of the active investigation right now.

Michael Herndon: Thanks Dr. Tauxe. Next question please.

Coordinator: (Lori Newgarden) with Associated Press.

(Lori Newgarden): Yes thank you. I have a couple questions today. First of all for Dr. Tauxe can you tell us a little bit more about these June onset cases? Are they clustered in anyway that suggests the outbreak is narrowing to a certain geographic region rather than continuing to be sort of hit or miss across the country or is it still just popping up everywhere and what kind of clues does that give you?

Robert Tauxe:

Thank you (Ms. Newgarden) it's - as has been apparent there are quite a number of cases that are in the Southwestern states. Texas, New Mexico, Arizona account for over half the cases in the outbreak and that continues to be the case in the more recently reported cases. But there - it's also true that there are - there continue to be cases reported from a number of different states across the country so it's - it's very hard to see a more - a more focused geographic pattern than that. A lot of the cases are in the Southwest but we are

hearing about cases from a number of countries from the Atlantic to the Pacific.

Within the cases that have been reported since June 1 there are a number of clusters or groups of people who became ill after eating at the same restaurant. And that information - again that's in the Southwest and that's also in other states and investigating those clusters of people who ate at the same restaurant before becoming ill is also part of our current investigation, detailed investigations of those either with CDC people assisting state health departments or a lot of work is being done by state health departments looking at what those exposures might have been.

Michael Herndon: Did you have a follow up (Lori)?

(Lori Newgarden): Yes I did. Are you doing actual trace back of the controls? I know earlier in some of these calls you said you had not done that perhaps because it looked at first like this was such a strong lead you didn't need to but is that being done now particularly in these June onset cases?

Robert Tauxe: We are - we have not identified something that would be traced back in the controls, no.

(Lori Newgarden): So - so you're not even finding controls who have eaten tomatoes and not become ill and not traced back where theirs came from?

Robert Tauxe: We are not requesting control trace backs at this point.

Michael Herndon: Okay, thank you. Next question please.

Coordinator: John Rockoff with Baltimore Sun.

John Rockoff:

Hi, thanks. Dr. Acheson I just want to make sure I understand the expansion of the FDA's investigation. Are you trace - tracing back specific products now, is that the expansion you're talking about?

David Acheson:

What were doing, this is David Acheson. What we're doing is a number of things under that expansion. We - as - as the case control studies and the investigation of the clusters get underway and the specific food items that are served with tomatoes look like they - they sh - they're worthy of tracing back then yes we would start to do that. One of the key things that we're going to start to do is - is increasing essentially setting up our testing of some of these other produce items that are commonly served with tomatoes. That - that's a big part of this. But for sure if we get some sense that we need to begin trace backs on some of these other food items we will - we'll begin that as well.

John Rockoff:

And Dr. Tauxe, is it possible that tomatoes had nothing to do with this outbreak that's mere coincidence that there is a strong association?

Robert Tauxe:

Well let me emphasize that we did observe a very strong association and we continue to observe that the cases are very often tomato eaters. It was over 80% of the cases in the initial case control study had - had consumed that - the - fresh raw tomatoes and it continues to be a very high proportion. So we - we continue to maintain a focus on tomatoes at this point.

John Rockoff:

But is it possible that it - it's totally coincidental that there's this association?

Robert Tauxe:

I really - really cannot speculate.

Michael Herndon: Thanks John. Next question please.

Coordinator: Stephanie Hsu with Los Angeles Times.

Stephanie Hsu: Hi, I'm sure Dr. Acheson you know that certain growers organizations like

Western Growers have called for house committee on agriculture to

investigate the FDA because they're complaining about the investigation is

too slow. I just wanted to know if you had any response to that.

David Acheson: This is David Acheson. Well certainly the Western Growers are - are at liberty

to contact Congress and - and make any request of Congress that they - they

deem appropriate and that's entirely within their purview to do that. I've

pointed out in my comments that I think there are a number of things that we

need to do to reduce the likelihood of a repeat of a situation like this including

formation potentially of an interagency task force, the importance of

improving our traceability systems and actions that Congress can take to help

us establish preventative controls. So there are a number of areas that need to

be looked at. I've already stated what I think those are.

Michael Herndon: Do you have a follow-up?

Stephanie Hsu: Yeah I just wanted to double check the numbers that Dr. Tauxe gave us. On

the Web site it says 851 cases have been reported. I thought I heard you say

859 and then on the Web site its 105 cases have been hospitalized but I

thought I heard you say 107? I just wanted to double check this.

Robert Tauxe: Yeah, this is Rob Tauxe. The numbers on the Web site would have been

posted yesterday evening and reflect the summary counts from the day before.

The numbers that I just gave you will be going up on our Web site later today.

Stephanie Hsu: Great.

Michael Herndon: Thank you.

Stephanie Hsu: Thank you.

Michael Herndon: Operator, we'll take a few more questions and then we'll wrap up.

Coordinator: John Wilkerson with FDA Week.

John Wilkerson: Hi and thanks for taking my call. How many more labs will be working on this problem now that you've activated FERN. I know that many of the labs that were previously working on it were, you know, our FERN members but

FERN?

David Acheson: This is David Acheson and I'll give you a high level answer and I think Dr.

Solomon is on the call and can ask some more specificity if you think it's

what, you know, what - how big a deal is this that - that you're activating

necessary. Activation of the FERN labs is not a mandatory phenomenon, it's

voluntary. And so when we put the word out for activation which we have

now done, it's a question of how many labs will volunteer to do this and join

in this investigation. So it's impossible at this point to say how many new labs

will come online but our experience is that if we do this - we can definitely

increase our ability to - to push through high capacity in short periods of time.

Dr. Solomon, do you have anything to add to that?

Steve Solomon: Hi this is Steve Solomon. No, I think that's accurate. We've made a request

for the labs, we've already had ten of them volunteer and we anticipate that

we will be getting more.

John Wilkerson: Okay and how many labs are members? If 100% of the labs decided to

participate and obviously you're not saying that 100% are but how many are

out there? How many possibly could be part of this?

Steve Solomon: This is Steve Solomon again. We have different capacities for different things

but for this type of analytical work there are approximately 100 labs that we

make (unintelligible).

John Wilkerson: And - and are those - would that be 100 labs on top of the - the state and

federal labs that were already working on this or does that include those labs

that were working on this?

Steve Solomon: That would include those laboratories.

John Wilkerson: Okay, thank you.

Michael Herndon: Thanks John. Operator?

Coordinator: Lisa Chinn with ABC News.

Lisa Chinn: Hi. I've got a two - I guess a two part question. The first one is can you tell

me exactly how many people have gotten sick since June 1st and then in terms

of expanding the investigation does that me that you'll have more

investigators in the field or will you I guess change their - their duties?

Michael Herndon: Rob do you want to deal with the - the first part of the question in terms of the

number sick since June 1st.

Robert Tauxe: Sure. Of the 869 cases that have been reported we know the date that their

illness began for 588 and of those 179 had illness that began on or after June

1st. So it's 179 people that we have information on who's illness began since June 1st and as far as broadening the epidemiological investigation, one thing we've done is may - is - add some additional questions to the interviews we're doing in our efforts. We have also been investigating the I mentioned the clusters that have been identified, we've been working closely with our state partners and on the number of these clusters of illness where people had an exposure in common.

And we also are conducting now a newer and larger multi-state study comparing where ill and well people remember eating and what they ate focusing on persons that became ill since June 1.

David Acheson:

This is David Acheson to address a little bit the second part we will be putting whatever inspection force resources needed from the FDA into the expansion of the investigation as it unfolds and as it's needed. We've certainly put a lot of people in the tomato part already and if there is a need to get different records from different places that involves others in the inspections, samplings, we've already talked about increasing lab capacity then for sure we will be doing that.

Michael Herndon: Okay, thank you. We'll take a final question operator.

Coordinator: (David Muscle) with San Francisco Chronicle.

David Russell:

Thank you. I had a question actually going back to the discussion earlier in week about repacking of tomatoes. Is it a common practice to recycle essentially the boxes that these tomatoes are in? Is it possible that you can have a box that is used again and again and again and then that might be a kind of a vector for transmitting salmonella?

David Acheson:

This is David Acheson at FDA. I'm not aware that boxes are recycled exactly in the way that you describe it of them backward - upwards - up and down the - the production chain of being reused. Certainly we have come across some indication that I cannot say how frequent a practice this is but some indication that in some situations tomatoes will be take - taken out of a box for washing and then will be put back in the same box. I - as I said I cannot speak to how often that occurs but - but I know that it has - it has been seen by our investigators or at least reported by our investigators. Dr. Solomon do you have any other insight on that?

Steve Solomon: No, I think your - your description was accurate.

David Acheson: Okay thank you.

David Russell:

If I could have a - a follow-up. You had mentioned Dr. Acheson that this is taking you - your the investigation goes where the science takes it and maybe in less scientific terms was there something that happened over the weekend that is led you to think that perhaps the tomato trail is getting cold and that yet the trail for some other non-tomato but associated with tomato products is getting warmer?

David Acheson:

This is David Acheson again. I wouldn't quote you quite in the terms that the tomato trail is getting cold. I think as - as we've said at this point the tomatoes are still the lead suspect so the tomato trail is still hot. It's a question of whether other items are getting hotter and need to get it in and that's essentially where we're going so for your question what's the new science? Well the new science you've heard Dr. Tauxe talk about is the expanded, the new case control studies, looking at the more recent onsets, the fact that we still have ongoing illness, taking another look at that and that clearly has raised the question of the need to expand the investigation and that's exactly

what we're doing. So the tomatoes are still right in there it's just that we've got - we've got to keep going full speed on the tomatoes and add in other items that are commonly served with the tomatoes in order to try to get to the bottom of this as quickly as possible.

David Russell:

And when you say that there is a strong association noted with the tomatoes from the beginning, is there a sort of a scientific way to quantify that in terms of a risk ratio or something like that?

David Acheson:

Well absolutely. Rob are you - are you able to provide a specific answer to that question in terms of the statistical probabilities?

Robert Tauxe:

Yes I can I think the observation was that over 80% of the cases reported eating fresh tomatoes and that something on the order of half that of the average healthy control person reported eating fresh tomatoes. And the statistical difference was very large and we expressed that with - in - statistical terms but basically it was extremely unlikely that we observe that by chance alone.

Michael Herndon: Okay, thank you. That concludes our - our call today on the - excuse me ladies and gentlemen. That concludes today's media teleconference and thank you for your participation. The replay will be available in about an hour and can be accessed until July the 4th. Additionally we expect to have transcripts available later on this evening for those who might care to have a copy of that and that will be posted on our Web site. If you have any follow-up questions please don't hesitate to call the respective agency. Thank you and have a great day.