

Transcript for FDA Media Briefing
Salmonella Outbreak Involving Certain Type of Tomatoes
June 13, 2008

Coordinator: Welcome and thank you for standing by. At this time all participants will be able to listen only until the question and answer session of the conference. At that time if you would like to ask a question, you may do so by pressing star one. And please state your name and organization at that time.

Also today's conference is being recorded. If anyone has any objections, you may disconnect at this time. Now I will turn the meeting over to Mr. Michael Herndon. Sir, you may begin.

Michael Herndon: Thank you (Gwennie). Thank you and - thank you very much and ladies and gentlemen welcome. I am Michael Herndon with FDA's media relation staff. Thanks and welcome to today's briefing on salmonella in tomatoes investigation.

We have one speaker today from the Food and Drug Administration and one subject expert from the Centers for Disease Control and Prevention. We also have several FDA officials here to answer any questions later in this briefing.

Today's speaker is Dr. David Acheson, Associate Commissioner for Foods with the FDA. Our subject expert from CDC is Miss Patricia Griffin, Chief Enteric Diseases Epidemiology Branch. Our FDA subject experts today are Michael Rogers, Director Division of Field Investigations, John Guzewich, Senior Environmental Health Science -- Scientist, excuse me -- and Matthew Eckel, Director Office of the Americas. And that's in FDA's International Programs Office.

We'll have a brief Q&A -- a question and answer segment -- after the opening remarks, but at this time I'm going to turn this over to Dr. David Acheson.

David Acheson: Good afternoon everybody. This is David Acheson, Associate Commissioner for Foods at FDA. Not a great deal of information that's new to share with you, but there are some important points and some updates that I want to provide with regard to what FDA is doing.

Firstly, just to thank Dr. Patricia Griffin from CDC for being on this call with us. There are no specific updates from CDC today. The numbers are as they were yesterday, which were 228 cases in 23 states. So today's numbers are the same as yesterdays simply because they have not been further updated.

With regard to the trace back of this - of the contaminated product, we are not yet at a point where we definitively know (unintelligible) of an area. There are multiple tracks of trace backs that are currently occurring at this point in time. And what I mean by that is that each track of a trace back begins with talking to a patient determining what type of tomatoes they ate and where they purchased it in the timeframe that fits with the onset of the illness.

I'm working back, as I've described in the previous two calls, to the retail store, the suppliers, the distributors, the importers. And each one of those tracks can lead in multiple different directions, often 20 or 30 different lines that we're pursuing at the same time. And we have got half a dozen or so of those going on at any one time.

One of the questions that came up yesterday, which I think is pertinent to repeat, is why does it take so long. And these - doing these trace backs through these multiple channels are very time consuming and complex,

because we literally have to get the invoices and the information to ensure that they're accurate.

And for example we were almost all the way through one when one of the patients that we had used, basically decided that it was not the Roma tomatoes that she had eaten; it was the red round tomato. So we had to start from scratch on that one.

Point is that the tracing is, as ever, complex. We've talked before about the two specific complexities around tomatoes. We are getting closer, but as of yet there is no specific geographic location identified.

FDA did update the website last night with more areas in the United States that were excluded, in so much that they were not producing tomatoes at the time that this outbreak occurred or is occurring. Or if they were, that distribution was of a different pattern, or they were producing tomatoes that were not associated with the illness. So that was updated.

It will be further updated tonight based on the information that is coming to FDA today. So again, you could find that information on FDA's website, which is www.fda.gov with a link on the front page there to the salmonella outbreak.

I want to mention briefly, simply because we've had a lot of questions around this, and that is the status of what is going on in Florida. I'm not wanting to put the focus on Florida specifically, but this is an opportunity for us to explain what the status of Florida is, because it is a little complicated.

When this outbreak began, the central or southern - and southern parts of Florida were producing tomatoes that were distributed in the same regions

where we have seen illness. And so for that reason Florida was obviously an area that was a question as to whether any of these tomatoes were tracing back to Florida. And that is still the status. We have - we still are not sure for certain whether or not these contaminated tomatoes originated from either the central or southern part of Florida.

The northern part of Florida was not harvesting at the time the outbreak began, but is now. The northern part of Florida is now harvesting, so they applied for exclusion. And FDA reviewed how they were going to differentiate northern tomatoes from others, and we're satisfied that that was going to work. So the Northern part of Florida is producing tomatoes - harvesting tomatoes now that are going out into the stores.

It is a little complex in Florida simply because there's different parts of the state that are in different states - different stages of this outbreak investigation.

I want to just mention that aside from the trace back, FDA has stepped up its sampling of tomatoes. We're doing this on both domestically grown tomatoes and imported tomatoes. To date we have had no positives, but there has been a significant increase in the sampling of tomatoes.

Typically when we do this we don't necessarily find a positive based on this sort of sampling strategy, but we feel it's important to do this because it does certainly raise the possibility that if there is an ongoing problem we'll find it. But it - but as I've said, typically this does not give us the answers that we need in terms of determining the origin, but it's an important part of insuring that the intervention controls are working.

The final message again is just to reiterate the message to consumers here. There are plenty of safe tomatoes that are out on the - in the stores right now.

Right from the beginning, the grape, the cherry, and those tomatoes that are still attached to the stalks have been safe. They never were incriminated with the outbreak, so that's important message number one.

Second is that the tomatoes that were incriminated with the outbreak were the Roma, the plum, and the red round. And as before, as the message yesterday and the day before, if those tomatoes are coming from growing areas that are on our exclusion list, then they are not part of the outbreak and are safe to consume.

We've had questions about well how will consumers know. We recognize that it may not be immediately obvious to consumers when they're in a restaurant or even in a store where the tomatoes have come from. And our advice is to ask the restaurateur, the retailer, the food service outlet, because retailers and restaurateurs have an obligation to know their suppliers.

And we have been in active conversations with the industry, essentially emphasizing that message of the importance of them knowing their suppliers so they can communicate that to consumers. So with that, Mike I'll hand to back to you for some questions.

Michael Herndon: Okay. Thank you Dr. Acheson. At this time ladies and gentlemen we'll take your questions. To be fair to everyone please limit yourself to one question and one follow up. And please state your name and affiliation. We'll take the first question.

Coordinator: Your first question comes from Elizabeth Weise at USA today. Your line is open.

Elizabeth Weise: Hi. Thanks for taking my call. Hey, a question on the beginnings of this. I know that the first cluster that was identified was in New Mexico, but the first case -- and I believe it was Dr. Williams from CDC yesterday -- said it was on April 10. Where did that -where was that and when was it identified, if you know.

David Acheson: Dr. Griffin, are you able to address that?

Patricia Griffin: I don't have that information at the tip of my fingers. I'm sorry. The initial cases were in Texas and New Mexico, and that's where the initial investigation was. But the exact location of that - the very first person on our list, I don't have at my fingertips.

Elizabeth Weise: Can I call CDC later and get that?

Patricia Griffin: We may have that. We can see.

Elizabeth Weise: Okay. Thanks.

Michael Herndon: Did you have a follow up, Elizabeth?

Patricia Griffin: No, that's fine.

Michael Herndon: Great. Thank you. Next question please.

Coordinator: Your next question comes from Justin Blum, Bloomberg News. You may ask your question.

Justin Blum: Hi. Thanks for taking my question. I'm told that nine patients who developed salmonella in two restaurants the same chain. Can you say which chain that

was and where the restaurants were located and what that means to the investigation?

David Acheson: This is David Acheson from FDA. No, we're not able to publicly put out there the name of the restaurant or the specific location. But what I can say is that that obviously represents a small cluster within this outbreak, and that information has formed one of the tracks of the trace back.

So figuring out where those tomatoes came from that left the illness in those nine patients clearly is - that's one of the tracks on the trace back. But I'm not able to give you the name of the chain or the geographic location.

Justin Blum: If I could just ask a follow up -- what's the reason you can't say even the state or the name of the chain?

David Acheson: At this point because of the fact that it's an active investigation and it would not be appropriate to name a chain or a state. That is confidential information that is part of an ongoing investigation.

Justin Blum: Okay. Thank you.

Michael Herndon: Thanks, Justin. Next question please.

Coordinator: Your next question comes from Louise Schiavone of CNN. Your line is open.

Louise Schiavone: Hello. Thank you for taking my call. Couple of questions. Do you have a percentage breakdown for the origin of tomatoes consumed in the US for the month of April and May? And I have a follow up.

David Acheson: This is David Acheson to clarify. So you're asking in the months of April what percentage come from what growing area?

Louise Schiavone: Right.

David Acheson: (Okay). I personally do not have those numbers in front of me. I'm looking to my other colleagues here. Jack, speak up.

John Guzewich: This is Jack Guzewich with FDA. You can get that information from the US Department of Agriculture Economic Research Service.

Louise Schiavone: Okay. So would they also -- do you not have the answer to this question -- of the percentage of tomatoes not yet cleared, how much is from Mexico and how much is from Florida?

David Acheson: You're talking about at the production - the time the outbreak was going on or what's being produced now?

Louise Schiavone: Yes, what you're looking at as possible culprits in the salmonella outbreak.

David Acheson: Yes. Well, you know, I - again I do not have those specific numbers in front of me and I'm - I don't know whether any of my colleagues do. But I think the vast majority of tomatoes that were in the - in national distribution at that time -- that's my understanding; and please, Jack, correct me if I'm wrong here -- were being produced in one of those two places at the time the outbreak was going on. They were very likely from Florida or Mexico.

Louise Schiavone: All right. Then can I ask you a follow up for something that you probably (will) be able to answer?

David Acheson: Sure.

Louise Schiavone: Do you have investigators on any farms or in any growing area anywhere? I mean given that you believe that the predominance of the tomatoes in the supply chain for that period of time were from Mexico and Florida, do you have investigators on the ground any place in Mexico or Florida?

David Acheson: We have not sent investigators into any farms yet because we don't know where to send them. Where - what our investigators are doing right now is they are visiting the suppliers, the distributors, the importers, to get the records that we need to put a nail into the trace back. So that's what our investigators are doing.

So when you see FDA investigators out as part of this outbreak, they're not operating in places where we think the contamination may have started. They're operating in the areas where the distribution records are.

Louise Schiavone: So do you think that there's only one source of this outbreak, or is it possible that there are two different places? And could they potentially be, for instance, one in Mexico and one in Florida that are accounting for the salmonella outbreak?

David Acheson: Well one thing is - you learn in science is never to say never, but based on probabilities, it's extremely unlikely that the same genetic fingerprint would have come from two places at the same time. So all the precedent would indicate that this has come from a single geographic region. .

Louise Schiavone: Thank you. Thank you.

Michael Herndon: Okay. Thanks, Louise. Next question please.

Coordinator: Your next question comes from John Wilkerson, FDA Week. Your line is open.

John Wilkerson: Thank you. Some of the companies that pulled tomatoes such as McDonald's and Wal-Mart, they have their own safety certification program. Has FDA lost any confidence in relying on their parties for such safety audits?

David Acheson: At this point FDA doesn't rely on third parties for safety audits. FDA does - we do our own testing in our own labs as necessary. The only time that outside labs are used are in the context of importer (unintelligible), which is not what this is about. So we are not part of how fast food service chains do their own certification and testing programs.

John Wilkerson: But it wasn't third party certification part of the food protection plan at least for processing facilities?

David Acheson: It is. Yes. Voluntary certification is part of the food protection program. And as you very aptly point out, to make that work we have to be certain that the testing, the inspections, and the program meets our standards. That is something that we will need to do in the future if we're going to use voluntary certification or third party inspections.

We don't do that at this point, so it's a matter of what are we doing now. We don't use that data. We have talked about using in the future. And if we did, you're absolutely right -- we would need to make sure that those systems worked.

John Wilkerson: Thank you.

Michael Herndon: Thanks John. Next question please.

Coordinator: Your next question comes from Erica Nelson, Inside US Trade. Your line is open.

Erica Nelson: Yes, hello. Thank you. My question is if you don't have any people on the farms in Mexico, what is your status of investigation in that country, and have you at all responded to the Mexican government request for a speedy process for this investigation, and how are you working with them?

David Acheson: Well I'll give you a first answer and then I'll ask Matthew Eckel to follow up who's from our Office of International Programs.

We don't have inspectors/investigators down on farms in Mexico because at this point they haven't been specifically implicated. We have been in discussions with the Mexico government, as I have said before, and I'll ask Matthew to provide you a little bit more insight into how that works.

Matthew Eckel: Sure. We actually have communicated a lot with our foreign counterparts in Mexico, both through emails and phone calls and in face to face meetings as well. And we have in fact asked them for some assistance in this, asked them for some information about distribution down there.

They've obviously asked us for the information that we have up here, and we shared that with them. So we feel as though we're in a good place of collaborating with them to get more information and try to solve this more quickly.

Erica Nelson: And do you have any sense of a timeline of how long this will take, and are there any other foreign governments that you're also working with right now or sort of looking at as part of your investigation?

Matthew Eckel: With regard to the timing, I'd - I'll leave that to David, but we are providing information to our Canadian counterparts who are also interested in this.

David Acheson: Let me just address timing. The short answer is we don't know. We won't know for sure until we get there. But as I've said before, I'm still confident that we will get to the point where we will be definitively able to say a geographic region. I'm not certain we will, but I'm confident based on the people at FDA working on this and the data that we're getting that we will be able to get that far.

But it's certainly beyond my ability to see next day or two as to whether we're going to be there that quickly. It's the complexity of these things. And you can be almost there and something falls apart, and then you have to start over. And that's happened to us a number of times.

Michael Herndon: Okay, Erica. Thank you. Next question please.

Coordinator: Your next question comes from John Rockoff, Baltimore Sun. You may ask your question.

John Rockoff: Thanks. I'm just a little confused about FDA's posture on this. This wasn't a recall. It was a warning. What is a warning?

David Acheson: You're right. It wasn't a recall because we haven't identified a particular product (unintelligible) request voluntary recall. What we have done is to put out consumer advice -- consumer messages -- so the consumers know what

kinds of tomatoes are safe to eat and know what kinds of tomatoes that they shouldn't eat. So that's essentially our approach here.

There is nothing to recall yet because we don't know the source. Is that - do you follow that?

John Rockoff: Yes. I mean I guess my question is what sort of legal effect does that have? I mean could growers and seller keep, you know, selling tomatoes?

David Acheson: Well yes. They - and they are. But the - we hope that they're growing and selling tomatoes that are part of the exclusion, but there is no legal requirements for them to do that.

We - I mean our (tools) essentially are do we have anything to seize if we see that there's a problem. And we know that there is. And right now we don't because we haven't identified the particular source or a, you know, a timeframe of a harvesting batch of tomatoes that you would either (unintelligible) the recall around or seize. So there is no possibility of doing that because we don't know what the focus would be.

John Wilkerson: Yes, thanks. Appreciate it.

Michael Herndon: Next question please.

Coordinator: Your next question comes from Claire Cummings, KQED TV. Your line is open.

Claire Cummings: Thank you. I'm hearing reports out of - or seeing studies out of Europe that shows systemic uptake of salmonella in the roots of plants. And I'm wondering if the FDA is looking into whether the pathogen or the salmonella

is something that can be contaminated on the surface of the plant or in the plant itself. Are you looking into that?

David Acheson: Yes, to answer your question. And the answer's both. You certainly can get contamination on the surface. Obviously with the tomatoes grown outdoors, if there's salmonella in the environment or the dirt and it splashes up on the tomato, then you're going to have surface contamination.

And there are other ways in which salmonella can get inside the tomato as well. You're right, there is certainly data that's been put out in terms of - it's the same - we had the same conversations a while ago with spinach and whether E.coli can get up through the roots. And there is some basic science information to say in a certain environment salmonella can get up into the plant itself.

I don't know - I haven't seen data to say that with tomatoes it can actually get all the way from the root right into the fruit, but I - if you have seen papers to that effect, you're - I have no reason to disbelieve you. I (unintelligible)...

Claire Cummings: No it wasn't - sorry -- it wasn't the tomato plant that was studied for that. I think it was a (rapadotsis). But the point I'm trying to make is when you advise consumers, people think washing. You know, this is always a question for people.

David Acheson: Yes.

Claire Cummings: If I wash it will that help. If it's systemic, that won't help. Is the FDA going to put out any information for consumers on that?

David Acheson: We have already. And on these calls we've been saying - I've been saying that it's - number one it's important to continue to wash fresh produce. This is not a reason for consumers to say, "That really isn't going to help. It's inside anyway. Why bother?" That's a bad message and it's incorrect.

Yes, there are circumstances where we know that salmonella can get inside certain types of fresh produce. Tomatoes is one, cantaloupes is another, where under certain conditions - and the sorts of things that can do it is big temperature differences. If you've got a hot tomato or a hot cantaloupe - and one of the things that produces do to keep them fresh is to cool them quickly.

Claire Cummings: Oh.

David Acheson: And they put them in big vats of water called hydrocoolers, and you end up with a huge temperature difference between the hot cantaloupe or hot tomato and the cold water. And scientifically what happens is that the - some of the water from the cooler can get sucked inside the cantaloupes or inside the tomato. And if there's salmonella floating around in that water, it can go right in there that way.

So one of the questions would be here for our investigators, if they figure out there's a specific location, is how do you cool your tomatoes and was the chlorination adequate in those hydrocoolers. We're nowhere near that yet, but those are questions that we have asked before in these types of situations.

Claire Cummings: Right. I - just one quick follow up. I agree about - I'm a little concerned about mentioning this on the air because of the confusion it might cause for the public, but I also would like to know if FDA does find that the contamination that we're talking about here was systemic in these tomatoes, what then?

David Acheson: In terms of for consumers?

Claire Cummings: Yes.

David Acheson: Well, you know, that's one of the reasons why we're recognizing people don't eat these tomatoes, because we know that - we don't have confidence that simply washing them thoroughly or scrubbing them even, is going to remove any potential salmonella, because as we discussed, it could be inside.

So the consumer message around this particular outbreak is not to consume these tomatoes rather than to try to wash them. The basic consumer message around produce for a day-to-day basis is that if it's not already bought washed, make sure you wash it at home under plenty of cold running water. That...

David Acheson: ...message hasn't changed.

Claire Cummings: Thank you very much.

Michael Herndon: Thank you. Next question please.

Coordinator: Your next question comes from Elizabeth Lee, Atlanta Journal Constitution. Your line is open.

Elizabeth Lee: Hi. Thanks for taking my question. I wondered if you were far enough in the investigation to classify this as a sealed contamination or a packing house problem. And if not, is there a possibility that tomatoes from states that have been cleared might be sent to packing houses in areas that aren't cleared for processing and get contaminated still.

David Acheson: The first part of your question - the answer is we have not yet determined whether this was an on the farm problem or a packing house problem. Part of the criteria for exclusion is not just looking at where they're grown, but where they're packed. Jack Guzewich sitting next to me has done a lot of the analysis of the exclusion data. Jack, do you want to expand on that?

John Guzewich: Well we - in our investigations - if this investigation is like others and we can get back to a farm eventually, we will be asking all those questions -- could the contamination have happened in the field, could it have happened in the packing house? We aren't there yet. The problem we face is that we'll be there some time after the contamination occurred.

If it's like past experience, the field will no longer be in production. The process plant or the packing house will no longer be in production, so it has to be somewhat conjectural -- not actually seeing the process happen. We'll do our best to reconstruct what happened and try to understand as much as we can about the possible modes of contamination so industry can put interventions in place and so researchers can do additional research to better understand how this all happens.

David Acheson: But part of the question was also focused on could tomatoes from a new harvest area go to a packing house that was the source of the contamination. I think that was basically Elizabeth's point.

John Guzewich: But that is possible. That is possible. Yes. The - it's not uncommon for tomatoes to be trucked some distance to a different packing house and then processed in that packing house. That is possible.

Elizabeth Lee: Has the FDA taken steps to prevent that in this case, or is that a possibility in this outbreak?

David Acheson: (Unintelligible).

Elizabeth Lee: (I would say) for example North Florida.

David Acheson: Yes, the - certainly it's part of the exclusion. The question has been not only where are they grown but where are they packed to try to make sure that that doesn't happen.

John Guzewich: (Unintelligible) this is Jack Guzewich again. As far as Florida's concerned, we're working very closely with the Florida Department of Agriculture and Consumer Services. Our arrangement is with that agency, and we work closely with that agency year round and have a lot of trust in them, and they are assuring us that that is not happening.

They're assuring us that packing houses that were packing tomatoes during the time this outbreak would have occurred are no longer packing tomatoes. They're assuring us that tomatoes that are being harvested now are coming from areas that would not have been harvested during the time of the outbreak. So they're certifying every lot of tomatoes (unintelligible) Florida for that very purpose.

Elizabeth Lee: Okay. Thank you.

Michael Herndon: Okay. Next question please.

Coordinator: Your next question comes from Melinda Hemmelgarn at Columbia Daily Tribune. Your line is open.

Melinda Hemmelgarn: Yes. Thanks for offering these question and answer sessions. Since we know that salmonella originates from animal feces, does USDA or FDA have any mandatory regulations on the proximity of these fields to say (cafos) where we know there is a large pool of fecal material? And I have a follow up.

David Acheson: This is David Acheson. I'm not aware of any regulations by any federal authority -- and I can't speak to states -- that limits physical proximity of any mammalian species with growing areas. You're right, and this question has come up before in the context of E.coli 0157 being harbored in ruminants like cattle and the proximity to leafy green fields.

And part of the preventative controls that we would - we're really interested in trying to understand better is what might that look like. If you were to come up with what's a satisfactory distance, is it simply just a matter of distance or it obviously will be dependent on the drainage of the water, the topography of the land, and many other factors as opposed to just proximity itself.

But I've given you a long answer to a short question. The - I don't believe there's any federal regulations that address that.

Melinda Hemmelgarn: Wow, that's really significant. I've been following this for a long time, and I know that the American Public Health Association actually - it's you know, asked for a moratorium on these large animal (unintelligible) operations, and I wonder if this isn't one of the reasons.

But my second question has to do with who is really keeping tabs on the total cost of these operations? I'm not just talking about the loss of money from the sales of tomatoes, but I'm talking about - there's energy involved here, fossil fuels with regard to shipping tomatoes these long distances. Is there anybody who's really keeping tabs on these costs?

David Acheson: Adding it all up together, I don't know. Certainly FDA's focus is on protecting the public health and ensuring that we figure out what's going on here as quickly as possible and getting the right consumer messages out. We are - within FDA are not tracking the sorts of costs you're talking about. And I'm not aware that anybody else is.

Melinda Hemmelgarn: Thank you.

Michael Herndon: Thank you. Next question please.

Coordinator: Your next question comes from Amy Burkholder of CNN. Your line is open.

Amy Burkholder: Hi. Thank you. The first part of our question was addressed. We wanted to talk about whether this was a field problem or packing problem. But our follow up is since it's very unlikely the genetic fingerprint came from two different areas, if you can sort of rule Southern Florida out, does that rule Mexico in, and what happens then?

David Acheson: It increases probabilities.

Amy Burkholder: Yes.

David Acheson: You know, and I - you're right -- I did say it's very unlikely that the same genetic fingerprint would come from both areas. Part of a trace back investigation - the goal is to try to get a solid connection back to a certain farm. That's what we're trying to do through a series of invoices and records so you really are building a solid trail from the consumer all the way back to a field, based on solid records.

Sometimes you don't get that far, so there is always a possibility of, "Well that fizzled out. We didn't do it." So what's the other evidence that would lead you to believe that that one area over another is the most likely? And certainly if we can prove definitively that these tomatoes did not come from one particular growing region and there was another growing region that was supplying the bulk of the rest of the tomatoes, it would raise the likelihood that it came from the other one. It doesn't prove that it did.

So we're essentially just playing a game of what's the most likely. But at the end of the day what we're striving to do now is not to work on the basis of what's most likely but what's the actual true fact. But your basic question is yes, it is going to increase the likelihood that that was the source obviously.

Michael Herndon: Did you have a follow up?

Amy Burkholder: No that's I think it.

Michael Herndon: Okay, Thanks. (Gwennie) we'll only take a few more calls.

Coordinator: Thank you. Your next question comes from Tiffany Hsu, LA Times. Your line is open.

Tiffany Hsu: Great. Thanks for taking the time to answer our questions. Here's my first question -- there were times (of) frequent consumers (get the) FDA's warnings about, you know, the three varieties of tomatoes as a blanket statement to avoid all tomato varieties, which as we all know has caused the domestic tomato (unintelligible) and take a pretty expensive tumble.

And I mean it's not the first time; it happened with spinach. So my question is, does the FDA have any education measures or plans that curbs this are,

doesn't confuse consumers, and doesn't cause produce producers to take a hit every time (this outbreaks)?

David Acheson: (Yes I do). Yes this is David Acheson. I mean that's a really good question. We tried to learn from previous experiences. Spinach was different. It started in a very different way with a multi-state outbreak with a pathogen that was frankly a lot more concern from a clinical perspective than salmonella with E.coli 0157, and the information from patients at that time implicated multiple brands of spinach.

Tomatoes is different in that it was - we're dealing with salmonella, which is not as clinically significant as E.Coli 0157A:H7. We're dealing with no labels, no brands, so the messaging is slightly different. But we did try to learn from spinach and say, "Well what can we tell consumers about the tomatoes out there that are safe" -- the grape, the cherry, those grown on the vine which are not linked to the outbreak -- and then through this process of exclusion.

Part of the plans in the food protection plan is to ask those questions about consumer behaviors, risk messaging, how can we do it better, how can we find ways to get out to consumers, industry, retailers, in a way that is even more understandable.

And it's often difficult because consumers will just see salmonella, tomatoes, don't want to go there. They do not - they don't go beyond that. And right from the start here we've tried to provide more specific information, and that's one of the reasons we're doing these press calls. I'm constantly repeating what the consumer message is so that you all can help us get the word out that it isn't (full) tomatoes, because you're right -- the big aspects of the industry that are taking an economic hit because of this. And that's certainly not our goal.

Michael Herndon: Do you have a follow up Tiffany?

Tiffany Hsu: Yes I do. You were saying earlier that packing houses that were packing at the time of the outbreak are no longer packing (unintelligible) (whole lot of) packing. Sorry. But my understanding was that the outbreak is ongoing and that people could still be contracting salmonella from tomatoes that were produced and sold even after the initial news of the outbreak broke. Am I wrong?

David Acheson: Jack do you want to answer that?

John Guzewich: Yes, the - that's true. Well we - the CDC - Dr. Griffin may want to add to this as well, but the CDC has judged the outbreak is still ongoing based on information that Dr. Griffin can provide. But you need to realize - as far as their epidemiologic perspective. But you need to realize that tomatoes have a three or four week shelf life from the time they're harvested. And so if tomatoes were harvested back in late April and early May, some of those tomatoes have only recently gone beyond their shelf life.

When you add in the length of time it takes for a person to come down ill after they eat a tomato, the time it takes for that person to go and see a physician for a specimen to be collected, that specimen to be tested for salmonella, for it to get to a state lab and find Salmonella Saint Paul and so on, it can be easily two weeks and three weeks after the time of the initial exposure to the tomato before that case shows up in our detection system.

So that delay or lag in reporting system means that we still have appearances that the outbreak is ongoing. Dr. Griffin, you want to add to that?

Patricia Griffin: I think you said it exactly right. The last case of which we are aware of, the person became ill on June 1 and the incubation period is usually about 8 to 48 hours - can be a few days more - which means that if that person was one of the many who got sick from a tomato, probably ate the tomato at the end of May.

Now that tomato may be at the end of its shelf life or it may have been at the beginning of its shelf life. We don't know. So we're still watching to see whether or not the outbreak is ongoing. And because of the delays in the system that Jack told you about, it takes us a while to know whether the outbreak is over or not.

John Guzewich: Thanks, Dr. Griffin.

Tiffany Hsu: Great. Thank you.

Michael Herndon: (Gwennie) we only have time for two more questions.

Coordinator: Thank you. Your next question comes from (Eunice Ortiz), WNBC. Your line is open.

(Eunice Ortiz): Hi. Thanks for taking my call. I was calling - I just have one question and I'll make it quick. Thinking is there any way there could be a vaccine or something that could help treat it before it would happen for the salmonella or E.coli or anything like that, or is it a virus?

David Acheson: The short answer -- this is David Acheson and Dr. Griffin may well have some comment on this too -- the short answer is in theory yes, sure. You could potentially develop a vaccine against almost any microbe. It's not as simple as the answer I've just given. There are 2300 different types of salmonella. The

question would be do you develop a vaccine that covers all of them or just those that are most likely to cause illness?

So simply - the scientific answer is yes. You could most likely develop a vaccine. Whether it would be practical or cost effective is a whole other question.

Tiffany Hsu: Are you even working on - towards that or no?

David Acheson: FDA is not. If anybody would be doing that, that would be through the Offices of the National Institutes of Health or through academia.

Patricia Griffin: There are other bacteria for which - for example the Army has been working on vaccines for decades without getting ones that they are happy with. So although in theory it's quit possible that we could get a vaccine, there are many reasons that it has not been successful for many of the viral pathogens for which it's been tried. And we're not looking to that as a likely possibility in the near or near term future.

Tiffany Hsu: Okay. Thank you.

Michael Herndon: All right. Last question please.

Coordinator: Your last question comes for Jane Zhang, Wall Street Journal. Your line is open.

Jane Zhang: Oh, hi Dr. Acheson. You said most tomatoes on the market during the time of the outbreak came from Mexico and Florida. Which one has a bigger market share?

David Acheson: Yes you're right. I did say that, and I don't know. I don't know whether any of my colleagues know. I'm sure that's a piece of discoverable information, Jane. And if we can find it we'll get it to Mike Herndon, who can get it to you.

Jane Zhang: Thank you.

Michael Herndon: Did you have a follow up, Jane.

Jane Zhang: No. Thank you.

Michael Herndon: Okay. Well thank you ladies and gentlemen and this concludes today's media teleconference and thanks for your participation. Now we will continue to make every effort to provide you with updates regarding this outbreak, and we'll do that by either updating our respective websites or by holding a media teleconference if necessary -- if there's some new and breaking information this weekend.

So we really encourage you to check our website - FDA's website as well as CDC's website, and to also look out for any media advisories we might send out, okay? Also the - this replay will be available about an hour and - after this broadcast and will be available until next Tuesday. So if you have any follow up questions just don't hesitate to call the respective agencies. Thank you and have a great day.

Coordinator: This does conclude today's conference. Thank you for attending. You may disconnect at this time.

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