

**FTS CDC NCHM**

**Moderator: Holli Seitz  
February 3, 2009  
1:30 pm CT**

Coordinator: Thank you for holding. Parties will be on a listen only mode until the question and answer session of today's conference.

At that time you can press star 1 to ask a question. This conference is being recorded. If you have any objections you may disconnect.

I'd like to introduce your first speaker Ms. Holli Seitz.

Holli Seitz: Thank you. Hi everybody and welcome. We're really excited that you're joining us today. This is a special Webinar created for bloggers.

And it's regarding the recent salmonella outbreaks as well as the numerous recalls of peanut butter and peanut containing products surrounding that outbreak.

The first bit of this presentation today will be resources that are specifically for you to use in your blogs. And a little later we'll hear from a CDC expert followed by a senior FDA official who will be sharing with us some information about the outbreak from their perspective.

So first, I'd like to just fill you in a little bit on why it is we're taking this approach. Currently CDC, FDA and HHS are working together to spread the word.

And in doing so, we've realized that, you know, we can't just use traditional media. And so a lot of Government initiatives are forming around tapping into social media.

And bloggers are a huge part of that because you do share important information in such non-traditional ways.

And so we really wanted to be sure to reach out to you to make sure that you have the information you need to write about the issue, to blog, and to spread it in other social media ways.

So for that reason we've created [www.cdc.gov/socialmedia](http://www.cdc.gov/socialmedia), which has a comprehensive list of resources.

And as we get started today I'd like to say if anyone is on the phone who perhaps did not get the Web link for this Webinar, you can visit [www.cdc.gov/healthmarketing/blog/Webinar.html](http://www.cdc.gov/healthmarketing/blog/Webinar.html) for those login instructions.

I would also encourage you to visit the social media link that's showing on your screen now ([www.cdc.gov/socialmedia](http://www.cdc.gov/socialmedia)) for a list of many resources that were created specifically with social media in mind.

One of the first tools that I'd like to mention that you may be interested in using is a blog created specifically by HHS for the peanut product recalls.

And that URL is showing on your screen (<http://pbrecallblog.hhs.gov>). There are almost daily entries regarding the outbreak and the recalls. And you can get some valuable Government information there.

I've also included a link to a CDC blog. And this blog is actually about topics beyond the outbreak. But for those who are interested in food safety or in enteric disease or zoonotic diseases, it's a really good blog from one of the top officials here at CDC who writes about those issues.

I'd also really like to call to your attention the widget that had been created specifically for this outbreak and the recalls.

Featured here are three different widgets. And these are all available at [CDC.gov/widgets](http://CDC.gov/widgets) as well as at the link at the bottom of your screen ([www.cdc.gov/socialmedia](http://www.cdc.gov/socialmedia)).

And one of the first is the FDA database widget. And this is a searchable widget that you can use to look up different products that you may have at home that might be affected by the recall.

The middle widget is trim math of the outbreak. And this is a rather large widget. So it may not be appropriate for your blog. But I think it's very interesting and I wanted to share it with you.

And this is updated based on how the outbreak is spreading and the numbers associated with that.

And then the widget on the far right is an everyday health widget. And this widget is also much broader than the salmonella outbreak and the recalls.

But currently because that's what we're focusing on that's where the updated will be around. And you could place this widget on a blog or a Web page and visitors can get an updated tip about health.

And these buttons and badges were actually just released today. The link at the top of your screen ([www.cdc.gov/socialmedia/blogger\\_graphics.html](http://www.cdc.gov/socialmedia/blogger_graphics.html)) is the page where you can find all the buttons and badges created specifically for bloggers.

And these will link, most of them link to the FDA database again so that you can direct your readers there to search through and see if any of their products were affected.

And these, again you can find them here. And just as a reminder, after the call for those who emailed and registered beforehand or if you got the invitation via email from me - I'll be sending out a follow up email that has all of these links captured in case you're not able to get them during the Webinar.

So we'll be sending out a follow up. And we'd love to have you post any of these tools on your blogs or Web sites.

This is also a link to a video that you could choose to imbed (<http://www.youtube.com/cdcstreaminghealth>). It's a video that FDA developed just this week from one of their top officials listing some of the dos and don'ts during the peanut related salmonella outbreak.

And then finally you can follow us on Twitter. And there are a variety of different groups who are tweeting on the issue. The top one is FDA recalls (<http://twitter.com/fdarecalls>). And so this will be your latest information from FDA on what products are being added to the recall list as they continue to be added.

CDC emergency (<http://twitter.com/CDCemergency>) on Twitter is a Twitter feed about any emergency, public health emergency that CDC is working on. And currently that includes the salmonella outbreak.

And then the third is CDC\_ehealth ([http://twitter.com/cdc\\_ehealth](http://twitter.com/cdc_ehealth)). And the eHealth Twitter feed is really kind of designed for health professionals or anyone who's interested in the social media work that CDC is doing around a variety of issues.

So that's probably how many of you found out about the Webinar today. And then we'd also just really like to ask you to help us, and I'm sorry for the typo, help us spread the word about health via blogs, Twitter, Web pages or social networks.

And with that, I will wrap up my portion. And I'm going to turn it over now to Dr. Casey Barton Behravesh, who is a Lieutenant Commander in the US Public Health Service, as well as Veterinary Epidemiologist with outbreak net in the Enteric Diseases Epidemiology Branch here at CDC.

So with that, Casey I will queue up your presentation, and everybody, Dr. Barton Behravesh.

Casey Barton Behravesh: Hi everybody this is Casey Barton Behravesh from CDC. Thank you Holli for that introduction. I would just like to start off today by saying that we at CDC are concerned and we definitely empathize with those who have been affected as well as with their family members during this outbreak.

And today I want to talk to you a little bit about the current state of the investigation and what we've learned so far. Some recommendations for both consumers and consumers with pets and how they get more information.

So next slide please Holli. So to, as of last night at 9 pm we have confirmed a total of 550 ill persons from 43 states and one additional ill person from Canada.

And the reported confirmed dates that illnesses for these people began range from September 1, 2008 to January 17, 2009.

And the ill people range in age from less than 1 up to 98 years. But the median age of patients is 16 years, which means that about half of the ill persons are younger than 16 years old.

Twenty one percent are five - under five years and 15% are older than 59 years.

About half of the patients are female and of people with available information, 22% are reported being hospitalized for any amount of time.

Also the infection may have contributed to eight deaths. And these deaths occurred in persons who were 59 years and older. And they are coming from the states of Idaho, Minnesota, North Carolina, Ohio and Virginia.

So next slide please. So this map shows the number of cases or ill persons infected with what we're calling the outbreak strain of salmonella typhimurium by state, as well as the count for each state.

So you can see here the states with the dark blue have the largest number of cases.

Next slide please. So this chart is called an epidemic curve or an epi curve. And it allows us to look at the number of people who became ill on a given date during the outbreak investigation.

And what looking at this curve tells us is that most of the illnesses began after October 1. But it's important for me to mention that illnesses that occurred after about January 4 may not yet have been reported because there is time it takes between when a person gets sick and when that illness is reported.

And that can take an average of two to three weeks. So you can see in that shaded area, that green shaded area is indicated the illnesses that may have begun during that time period that are not yet reported to CDC.

And although we can't say the outbreak is over, the number of new cases or illnesses have declined over the last couple of weeks. And the outbreak does appear to have reached its peak in December.

So next slide please. So this is the CDC Web site that provides regular updates on this salmonella outbreak investigation as well as any salmonella outbreak we're investigating.

And just to show you some of the things covered on this Web site under our today's highlight section, we first of all say when this update, the date the update was for and when the next expected Web update will be.

So our next Web update will be on Thursday, February 5. We report the updated case counts as well as the most recent illness, the most recent date illness began.

We also have a direct link to the FDA online database to look at what foods are on the recall. And you'll hear a little bit more about that from Jack Guzewich.

We have information for additional advice to consumers. Information on the size and symptoms of salmonella, a special section for pet owners with questions and answers related to the outbreak in pets.

And you can see a variety of other things listed here. We have several pod casts that are available, including a kid specific pod cast.

There's also links on CDC's role during a multi state food-borne outbreak investigation to kind of explain what we do and what are some of the steps we take during these investigations as well as a brief mention of CDC's role in food safety.

And then something else that's new that I'd like to draw your attention to are CDC e-cards related to the salmonella outbreak. So these are e-cards you can send to a friend or family member and alert them of the outbreak.

And it has a direct link inside the card to go to the recall site to search for recalled products.

So next slide please. So just to tell you a little bit about the investigation, I apologize, I don't have an actual slide for this. But we began investigating this outbreak in the latter part of November with what we call hypothesis generating.



And that's where we interview people who got sick and ask detailed questions about over 300 different food items that they might have eaten. And see if there's anything that's showing up as common.

Whether it's a specific food item or brand or anything like that among these people. So in doing that we come up with a hypothesis, what we call a hypothesis.

And the next step is to further investigate that hypothesis by conducting what we call a case control study. And that's a type of study where we look at people who got sick and also healthy people who didn't get sick in those same communities.

And ask similar questions to compare what they might have eaten or other things that they were exposed to during the same timeframe. And do a statistical analysis to help us determine why some people got sick and others did not.

So we have conducted two national case control studies in response to this outbreak. And the first study showed an association with eating any peanut butter products.

And it's important to mention that it did not show an association with eating the national jarred brands of peanut butter, so the national popular grocery store brands of peanut butter were not implicated with our study.

Our, also just before this study was completed, the Minnesota Department of Health conducted investigations in their state and found that most ill people in Minnesota were eating peanut butter as well as a few of those were living in specific types of institutions.

And found that these different institutions had a brand of peanut butter called King Nut Peanut Butter. And Minnesota identified the outbreak strain of salmonella typhimurium from an open tub of King Nut Peanut Butter from one of these institutions.

And since that time we've had several samples from the King Nut Peanut Butter show up as a match to the outbreak strain. And these are coming from closed or new tubs of peanut butter.

So ongoing patient interviews indicated that many ill persons did not eat peanut butter at institutions, but had eaten various other peanut butter containing products.

So we did a second study, a second case control study, to further assess some of these peanut butter containing products, or other peanut containing products.

And this study was done in the middle of January. And what we learned with this study is that there was a risk with eating certain pre-packaged peanut butter crackers, specifically the Austin and Keebler brands of pre-packaged peanut butter crackers.

And those had or had been put on a precautionary hold and already voluntarily recalled by that company.

So now I want to talk a little bit about the current advice for consumers. And this is posted on the Web site that I showed earlier, again the [cdc.gov/salmonella](http://cdc.gov/salmonella).

So what we're currently advising is that consumers who have recalled products in their home should discard those products and throw them out.

Consumers should also avoid eating products made with peanut butter, peanut paste or other peanut containing products if they're unsure whether these products have been recalled.

Again, national brands of jarred peanut butter sold in grocery stores have not been implicated in this outbreak.

Consumers with pets should know that some pet foods and pet treats may contain peanut butter. And those include dog biscuits and bird food. If you have a recalled pet product in your home you shouldn't feed it to your pet or other animals.

And to determine if a product's been recalled, consumers can search the list of recalled products on the FDA Web site. Or you can call the telephone number on the package that the company distributed.

Additionally, you can call, especially for consumers without Internet access, you can call 1-800-CDC-INFO and that number is available 24 hours a day, 7 days a week.

And that's for any health-related issue. But specifically you can call that number now to get product recall information. Operators will look up information on the FDA Web site. And there are also other experts there who can answer questions about salmonella in general.

Also people who think they might have become ill from eating peanut butter or peanut containing products should contact their healthcare providers. And

infants, elderly persons and person with impaired immune systems are more likely than others to develop severe illness.

Next slide please. Because I know we do have some pet bloggers on, and I'm a Veterinarian so I've, this is an issue that's very important to me as well.

Have any pet foods or treats been recalled? So it's important to know that certain pet foods and treats may contain peanut butter. And as I mentioned earlier that the dog, even cat treats and some bird foods.

So if you have a recalled pet product in your household, again you shouldn't feed it to your pet or other animals. And on our Web site we have detailed instructions for washing your hands after contacting those products.

And advise people that any recalled product should be thrown away to prevent salmonella infections in humans, pets or other animals.

And it's important to dispose of the product in a plastic bag and put it in a sealed trash can. That will prevent people or animals, including wild animals, from getting into it and trying to eat it.

Then next slide please. So again I just wanted to show the CDC info contact information. This is available 24 hours every day of the year. And we also have an email address available for people to email in questions.

Next slide please. So this is my last slide. I just also wanted to alert you of our publication last week in the Morbidity and Mortality Weekly Report.

This is an online resource where we give a very detailed explanation of the outbreak as well as details of the different case control studies that we

conducted that I briefly explained earlier, and as well as other detailed information on our investigation.

So thank you for having me on the call today. And I'll turn it back over to Holli until the time for questions. Thank you.

Holli Seitz: Thank you so much Dr. Barton Behravesh. Our next speaker is Jack Guzewich who is Acting Deputy Director of the Office of Food Safety Defense and Emergency Coordination at the FDA Center for Food Safety and Applied Nutrition. And with that, Jack I'll turn it over to you.

Jack Guzewich: Thank you (Heidi) and good afternoon ladies and gentlemen. The FDA is required by laws and by our mission to protect and promote the health of Americans.

When a food company fails to live up to its responsibility to produce safe products, the FDA carries out its mission by using every authority and resource at our disposal.

That's what we continue to do in confronting the recent outbreak of illness caused by peanut containing products contaminated with a potentially dangerous bacteria, salmonella typhimurium.

And what has become one of the largest recall efforts FDA has ever dealt with. We've worked with health authorities in Minnesota and Connecticut and other states and with our colleagues at the Centers for Disease Control and Prevention to trace down the source of the contamination to a plant operated by the Peanut Corporation of America in Blakely, Georgia.

FDA has thoroughly inspected that facility and the company has now issued recalls covering all peanut products manufactured by that plant since January 1, 2007.

The plant currently is not operational and a criminal investigation is currently underway.

The products made by this company include peanut butter and peanut paste, oil roasted and dry roasted peanuts, peanut granules and peanut meal. Many of these products you may not have heard of but they're used as ingredients in making other peanut containing products.

Where this investigation and subsequent recalls became so complicated is that some of these products were not only distributed in large containers to institutions such as schools, retirement homes, restaurants, the food service industry and private label companies.

But these products also went to many manufacturers that used them as ingredients in crackers, cookies, ice cream, granola bars and the list continues to grow everyday.

Since the source of the outbreak was identified, our investigators and state officials have visited more than 1,200 firms that purchased PCA products.

We continue to work with companies on recall actions to make sure all potentially contaminated products are taken off the shelf.

I know that Dr. Behravesh mentioned the searchable database that is on our FDA.gov Web site. But I wanted to repeat that that is the top most data source

of up to date information for consumers to check for these products and that have been recalled for potential contamination.

This list has hundreds of products right now. And we expect it to continue to grow.

We received word over the weekend that visits to this site have topped 19 million just last week, which means that people are checking it and rechecking it. And that's what we want them to continue to do.

And it's important to keep in mind there that because this recall will go on to some time, we're concerned that people will begin to lose interest in the recall.

And so there may be products we learn about some days or weeks from now when they've kind of lost interest, but still could be contaminated and be in their homes, in their pantries or freezers.

Now I'd like to go through a short slide presentation that will walk you through the process that FDA uses in confronting any disease outbreak and tracking down the source and making sure the products are removed from the marketplace.

Holli can I have the next slide. We're going to talk a little bit about outbreak investigations. Dr. Behraves mentioned some of the steps that CDC uses. Some of this is a little repetitive, but I hope it will still be informative for you.

The process of disease investigation begins as disease surveillance and that is the activity carried out primarily in the United States by state and local public health agencies.

They have employees whose job it is to monitor disease currents. They're called epidemiologists like Dr. Behravesch is an epidemiologist.

And those individuals survey a lot of different information, including laboratory analysis. And this outbreak was detected because of sophisticated laboratory analysis done by state public health labs around the country and fed into CDC over a Web based system called PulseNet.

Once the increased cases of disease were detected, in this case it's the salmonella typhimurium. When the epidemiologists realized there were more cases going on, that laboratories were reporting, new cases almost every day, the epidemiologists began their investigation.

Which is an elaborate process of determining what foods people were exposed to. And they go through a process, I won't go into detail about here, to identify what foods are most likely associated with the illness.

In the case of this investigation, some of that began as early as November. It was going on very heavily in December. And it was into early January before the link was positively made to peanut butter.

As I've already mentioned, laboratory analysis is a key part of these kinds of investigations. The initial kind of laboratory investigation is conducted by clinical laboratories and hospitals and private labs.

Those results are then forwarded on to state public health laboratories to do more sophisticated testing that is able to do a genetic fingerprint. And that fingerprint is what we use to tie things together.



Once the outbreak is linked to a particular food product, the FDA gets involved in our environmental investigations trying to identify how the contamination occurred.

In this instance we traced from Minnesota initially, and some illnesses in Minnesota, back to the King Nut Company in Ohio. And from their back to Peanut Corporation of America in Georgia as the plant that ultimately prepared the peanut butter and other products that were involved in this outbreak.

We then did an extensive investigation at the facility in Georgia to identify possible ways the contamination occurred and other important evidence.

If this was an outbreak involving fresh produce, which it is not, we would also be involved in a farm investigation to identify how the contamination occurred on the farm or the produce like tomatoes or cantaloupes were produced.

Can I have the next slide please? This is a slide that's really a CDC slide. And it's important, I'll take Dr. Behraves' thunder here. I'm sure she could talk about this one too.

But anyway, this gives you a sense for our disease surveillance system. And the important thing about this slide is that when you have illnesses in the general population, as we move up through this pyramid you'll see that fewer and fewer of these actually come to the attention of public health officials.

So we have illness in the population. The person becomes ill and in some cases that person sees a physician. And the physician has a diagnostic test performed. And that diagnostic test ideally identifies the salmonella bacteria.

That specimen then goes on to a more specialized state public health lab where they can do additional what we call characterization or fingerprinting to identify that there is a particular kind of salmonella involved.

And ultimately that gets reported to a local health department or a state health department and on to CDC. And as this pyramid gets narrower and narrower at the top, the message there is that fewer and fewer of the actual cases that occurred make it through this process and get identified.

And the important message here is that CDC has talked about 550 identified cases that are laboratory diagnosed and had this unusual fingerprint or pattern of salmonella.

Actually there are probably many, many, many more cases of salmonella going on in this outbreak but haven't been reported.

Next slide please. Now the formal surveillance systems in our country are a couple. There's the National Notifiable Disease System, which is done by CDC.

And there's this system that I want to talk about for a second. This PulseNet system, there's other systems, these are all run by CDC. The important one here is this one you see there called PulseNet.

That system is run by CDC, but it involves the state public health laboratories doing this genetic fingerprint testing and identifying unusual patterns or unique patterns in the way that their fingerprints are done.

And those patterns are entered into a Web based system. Just like you all like to communicate over the Web, this is a secure Web based system that goes back to CDC where all these many patterns are compared. And they look for commonalities and common patterns.

And through that system they were able to detect this particular outbreak. That is done, like I said earlier, by the local and state public health agencies and the state public health laboratories.

And then ultimately CDC gets involved in coordinating that laboratory detection system. And then the Food and Drug Administration gets involved in some products that are involved in the food system and the US Department of Agriculture and other products.

Next slide please. So the important thing to understand here is that we at the Federal level, both the Centers for Disease Control and FDA are very dependent upon the work that's done by state and local agencies to identify the vehicle or the cause of the outbreak.

Next slide please. Once the CDC and the states identify the outbreak or the association with a food, in this case it was initially peanut butter, later determined to be other peanut products as well.

CDC let's FDA know about this. We have people working at CDC routinely that learn about this information. And then we coordinate with other Federal agencies, state and local agencies, to carry out our investigational work.

In this case the investigation at the plant in Georgia actually involved not only Food and Drug Administration employees, but employees of the Georgia Department of Agriculture and the Centers for Disease Control.

Next slide please. Our role here where I work at the FDA Center for Food Safety and Applied Nutrition involves preparing the news media reports. Working with industry and getting input with industry and advising them of what's going on.

We also work with consumer organizations and the companies and retailers and food service operators. We work with the entire food distribution system to initially make them aware of the situation and then to seek their involvement and support and possibly provide useful information to figure out what's going on, and ultimately when a recall is involved, for them to rapidly implement a recall. Next slide please.

We do these things through conference calls with states and CDC. Dr. Behravesh didn't mention it, but she was involved and many people from CDC were involved with numerous conference calls involving epidemiologists in state health departments around the country and some local health departments.

And once they identified that a particular food is involved, we get involved in this trace back process at FDA to determine where the food came from. And to develop the scientific information we have to have to take our actions.

Next slide please. We do a review of the epidemiologic data and environmental data to be assured that we are looking at the right product.

Risk management and risk communication, which is a process of limited the amount of harm that's already been done and communicating the public what we know about the outbreak and what actions the public can take to protect themselves.

And then provide the scientific support and evaluations, then we have a science-based investigation.

Next slide. We get involved in trace backs to identify the source of the products. We work with industry to quickly move the products in the marketplace.

And we get involved in preventive controls. And this I haven't mentioned yet. But, and in this case we're involved in asking the companies what they intend to do given that they may have shipped contaminated food. In most cases the companies conduct a voluntary recall.

And PCA has done recalls. And if you go to our Web page you can see now that there are over 100 companies recalling several hundred foods at the present time that are all products made with Peanut Corporation of America products as ingredients.

And the reason you have several hundred recalls going on is because PCA sold very little food directly to the consumer marketplace. Most of the products that they produced were going to manufacturers and other kinds of companies that use those as ingredients in the foods that they prepared.

And so you have many, many, many, many companies that were receiving PCA products and using them as ingredients in foods that they were selling to the public.

We also work on other regulatory actions as needed. And as some of you are aware, there is a criminal investigation that is going on at this time.

Next slide please. Given the time, I think I might have covered that. I'm going to go on to the next slide please.

Once the outbreak has been investigated, one of our very important parts of what we do is try to learn from these outbreaks to prevent them from happening in the future.

As you know, some of you may know there was a peanut butter outbreak a couple of years ago. And we're trying to learn from these things to prevent these things from happening not only in peanut butter, but other similar products as well.

So we evaluate the data we gather in these outbreaks to try to learn from it. To try to come up with actions that can prevent these things in the future.

And we look for the opportunity to intervene earlier to prevent further illnesses. And in this case for instance, FDA began its investigation of this outbreak before we had conclusive epidemiologic evidence pointing to peanut butter as the vehicle.

Next slide please. We work with CDC and our partners at USDA. We continually implement lessons learned. In fact some of the actions that we're taking in this particular investigation with peanut butter are lessons that we learned in the tomato and the pepper outbreak that occurred last summer.

Next slide, and I think that's the end of it. Okay, I'm done. Thank you Holli.

Holli Seitz: Thank you very much Jack. And at this point I will ask our operator (Julie) to go ahead and initiate some of our calls from the audience, or our questions from the audience.

Coordinator: And thank you. We'll now begin the question and answer session. If you'd like to ask a question please press star 1. Please un-mute your phone and record your name clearly when prompted.

Your name is required to introduce your question. To withdraw the question it is star 2. Once again as a reminder if you have a question from the phone line to please press star 1. Please stand by for the first question.

Holli Seitz: And while we're queuing up that first question, I do have a question for both Casey and Jack. Someone actually asked me when we were developing this Webinar why is this still newsworthy?

I certainly still believe it is. But I was wondering what your thought behind that was?

Jack Guzewich: This is Jack. I can take a shot at that. I think the important message here for the people on the call today is to realize that the public health threat there is food in the marketplace and homes that could make people sick.

So, although the news media pretty well reported the investigation and some of the findings of the investigation, and that's interesting and people want to follow that.

In terms of a prevention mode, or a public health protection mode, what's important to realize is that this recall is ongoing. They're going to be additional products identified that could be contaminated.

And because of that, we need to have the attention of the public on this Web page for coming days or weeks at least as we find more products.

Some of these products are what we call shelf stable. They'll last a long time in your pantry or they'll last a long time in your freezer.

And our concern is that people could still have some of these products in their home, even long time after this is headline news.

Coordinator: And we do have a couple questions on the phone line. Our first one is from (Louis Robinson). Your line is open.

(Louis Robinson): Hi, what is the origin of the peanut problem? And what's the biology behind peanuts? Why do they cause these problems?

Jack Guzewich: I'll try to take that one. Peanuts, for those of you who don't know, are actually not a nut, they're a legume if you're a botanist. And they grow in the ground. They are part of the root system of the plant.

So you have a green plant above the ground. And down underground you have the roots and you have these legumes which is where that particular plant stores a lot of nutrients.

So, , because they grow in the soil, the soil can have various bacteria in it that can make people sick, and among those bacteria are salmonella. So it's very possible when peanuts are grown anywhere, it doesn't matter where they're grown, that the salmonella bacteria could be on those peanuts as they're harvested and as they're brought through the process that renders them into food that we eat.

So that's one of the sources. But the salmonella bacteria can be brought in by employees on their feet or on their clothing. They can be brought in by vermin



like insects or rodents in the facility, they can be brought in by equipment and other things.

There's a lot of ways that the salmonella bacteria can enter the plant where the peanuts are turned into peanut butter and other products.

And so the issue is as much about preventing the contamination in the plant as it is about the fact that they come in from the field with possibly with salmonella on them.

As a practical matter, they're not sterile when they come in from the field. Therefore you have to produce them in an environment where they don't become contaminated after you've roasted them and you turn them into either roasted peanuts or peanut butter or some other product.

(Louis Robinson): Thank you.

Jack Guzewich: Yes.

Coordinator: Thank you. Your next question - question is from (Jennifer Parello). Your line is open.

(Jennifer Parello): Hi there. I actually have two questions. One, I know you mentioned that one area that the sources of peanut butter or the peanut butter could have gone into was schools.

What's the best way for parents to make sure that the peanut butter being served in their school cafeteria is - isn't potentially contaminated?

Jack Guzewich: This is Jack Guzewich again. I think the best thing you can do is to talk to the school lunch manager in your school system. Any public school or at that matter a private school has someone who's in charge of the food service department or the lunch program.

And so whoever that person is, he or she, you could contact that person A, to make sure they're aware of this recall. And B, that they have taken proper steps to make sure they're not serving either peanut butter itself or other, some of these snack foods that could also include PCA ingredients.

You know, many schools have vending machines in them or other places where the students can purchase snack foods. And so if some of these things that are being recalled like crackers and cookies might also be provided in the school.

So the school has to look not only at the lunch program and peanut butter being served to the children, but also to snacks that are either provided by the school.

Or actually I heard one story of snacks being brought into the school for a party for one of the children and then the concern about that. So the school has to be mindful that children might actually bring some of these things in as part of a little function going on in their classroom.

(Jennifer Parello): Okay. And then the other question I had is because for me, my first instinct is okay, I'll just buy my own peanuts and make my own peanut butter because I happen to be a chef.

Is there any concern with buying whole peanuts? Something that's not a peanut butter base, peanut butter paste or a peanut butter product?

Jack Guzewich: Yes. I'm sad to say, yes. Some of the - this company produced roasted, oil roasted peanuts and dry roasted peanuts.

And some of those peanuts made it through the food system as still as whole peanuts. They weren't made into other food products.

So it is conceivable that peanut products that you would find at the retail level where you would purchase them to make them into peanut butter, could have been from this source.

So whoever you're purchasing your peanuts from, whatever store you go to, you want to inquire of that person to make sure that they don't sell you peanuts that came from PCA that have been recalled.

(Jennifer Parello): Okay so basically, like I shop at Trader Joe's and I know Trader Joe's has had some signs about specific products. But at this point it's really just staying on top of the information and getting the information as soon as it comes out.

There still could be that potential risk. It's just a matter of monitoring it at this point?

Jack Guzewich: Absolutely, you said it better than I could.

(Jennifer Parello): Okay thank you.

Jack Guzewich: Yes.

Coordinator: And thank you. As a reminder if you do have a question from the phone line to please press star 1 on your touchtone phone.

Holli Seitz: While we're waiting for another question to queue up, I wanted to add to something that Dr. Barton Behravesh said earlier, 1-800-CDC-INFO is really one of our best resources to share.

And I wanted to add that that number is available for those who speak English as well as those who speak Spanish. There are Spanish speaking operators there.

And I will, as we're waiting for some other questions, try to find the slide again that has that information on it.

Coordinator: You do have a question on line. Would you like to take that right now?

Holli Seitz: Yes please.

Coordinator: All right, (Michael McCarthy) your line is open.

(Michael McCarthy): Hi, question. The Keebler and Austin crackers were recalled somewhere like January 14. And then really, really in the past, that was two weeks ago or more.

And really the past week we've had this flood of recalls. What tipped the, what was the tipping point that suddenly we get this flood since I would imagine most of these manufacturers knew where they got their peanut paste?

Jack Guzewich: This is Jack Guzewich. I'll try to answer that. That's a very understandable question. This is, these investigations are an iterative process. You don't instantaneously have all the information.

You learn it over time. And so this recall as often happens in these complex investigations, really hasn't been one recall but it's been several recalls as more information was learned in the plant and the scope of this grew.

And initially the recall was just back to July 1, 2008. And just involved peanut paste and peanut butter. The distinction being peanut paste is just ground up peanuts. Peanut butter has had stabilizers and sugar and other things added to it. That's when it becomes peanut butter.

So those two products were initially being recalled back into July 1 of 2008. And so the recall then was involving approximately 70 companies, or a little more than 70 companies that received products from PCA.

And we were working down, we FDA and the company, were working down through the distribution system to get to all the companies impacted by that.

It just takes time for that to happen. It's just - there's many places you got to go. You have to talk to people. You have to get information. You have to figure out which products were included and so on and so forth.

This all takes time. That's why it kind of roles out. And then a few days ago, based on the additional information that FDA had developed in its investigation, PCA did a voluntary recall of all products manufactured back to January 1, 2007.

And the number of companies increased by an additional 360 or more companies that received product from that time. Because not only did the timeframe expand, but the number of products expanded to include not only peanut butter and peanut paste, but also peanut meal, peanut granules, oil roasted peanuts and dry roasted peanuts.

So the number of product has increased. And the timeframe covered has increased. That plus the time it takes just to work down through the system, because some of the people who received these peanuts and other products, they themselves manufacture that into a finished food.

And it goes out to the distribution system. Others of these companies make something that becomes an ingredient in yet other companies' products.

And so it just takes time for it to work down through the system. And then out through the distribution system to all the retailers before everybody figures out what products are involved.

And so I think you can expect to continue to see this grow for several days or weeks yet.

(Michael McCarthy): Thank you.

Jack Guzewich: Yes.

Coordinator: Thank you. Your next question is from (Bob Roche). Your line is open.

(Bob Roche): Yes, thanks. Along that same line I just wondered if you could say again the approximate number, total number of companies that have been involved in recalls and the total number of products so far that have been recalled?

Jack Guzewich: The number of companies on our Web page, I saw the figure a little while ago, it now is in excess of 100 individual recalls. And the number of products is several hundred.

I've lost track of how many hundred products. There's several hundred products now on there that are being recalled because a given company may have different products that they make. It may not just be one company, or one product rather.

So that's why the number of products is much larger then the number of companies.

Holli Seitz: And Jack I believe, this is Holli, I believe I heard on the call this morning that the number of individual items may be at around 880?

Jack Guzewich: That sounds right, yes. It's a very big number now. Yes.

(Bob Roche): Thank you.

Jack Guzewich: You're welcome.

Coordinator: I'm showing no further questions on the phone lines.

Holli Seitz: This is Holli. In addition to any other questions you may have for our speakers, I'd also like to open it up at this point to any comments you may have on social media resources that would be helpful to you in the future.

And I'd like to reiterate that we're, you know, we're really beginning to expand our process and expand the way we think about disseminating information on outbreaks.

And we're open to any feedback you have on resources that might be helpful to you as bloggers or as anyone involved in new media. So we'll also take those comments.

Coordinator: And thank you. Our first one comes from (Michael McCarthy). Your line is open.

(Michael McCarthy): Hi, our question is on biology here. I think I read somewhere that salmonella, actually peanut butter is not a particularly good medium for peanut butter. Can you comment on that, I mean that it doesn't - it needs water.

I understand salmonella needs more water than what can be found in peanut butter.

Jack Guzewich: Yes.

(Michael McCarthy): Could you just sort of flesh that out a little bit?

Jack Guzewich: Yes, yes, I'd be glad to. Your basic question is, is if the premise is true that peanut butter is not an environment where salmonella bacteria can grow.

But what's a particular issue for us with this salmonella bacteria is that it doesn't have to grow to survive. So the bacteria can be present there and survive in basically an inanimate state.

And if at a later point and time they find themselves in an environment where they can grow, they begin to grow then.

And in fact, peanut butter is a food that we consider to be low in water activity. That's a technology term. I don't expect you to understand that.



But it means there's not a lot of water available for the plant - for the bacteria to grow, that's what it means.

And so the bacteria kind of goes into a hardened state that enables it to withstand that environment. And actually salmonella bacteria can be a problem in things like milk chocolate and in milk powder and actually even in flour.

The flour you buy at your supermarket to make cookies and cakes can actually have salmonella bacteria in it as well. So the bacteria can survive in those very moisture poor environments and just survive there.

But if later on it gets into a moist environment, it can grow again and become a problem. That's why you can - it can be in the peanut butter for a long period of time, not die, just hanging out there, just being fine.

And then when you ingest it and it gets inside your system, it then has a more moist environment and it grows out and makes you sick.

(Michael McCarthy): Okay great. Thank you.

Jack Guzewich: Yes.

Coordinator: Again with any questions or comments from the phone line to please press star 1. Again if there's any questions or comments please press star 1. I am showing no questions or comments at this time.

Holli Seitz: Thank you (Julie). Well with that I would like to very much thank our speakers for taking time today. I know they're both so very busy with the outbreak and recalls.

And so we appreciate their taking time to share with us. And we very much appreciate you taking time to be on the Webinar today. And again, we'd love to encourage you to blog about it, tweet about, and share this valuable information with anyone you know.

We do want to direct everyone to the FDA recall database through the various tools that we've set up to drive traffic there. So that everyone can check their products and we can begin to head off this outbreak.

Again, thank you to everyone. And with that, hope you have a great afternoon.

Coordinator: And thank you. This does conclude today's conference call. And you may disconnect your lines.

END