

Why I Can't Recall a Recall?

Food Safety Relapses



PODCAST 10

Dr. Jane Caldwell:

Welcome to the *On Medical Grounds* podcast. I'm Dr. Jane Caldwell, your host. *On Medical Grounds* is where you can find an authentic audible blend of timely scientific and medical knowledge. We talk with leading experts in science, health, and medicine. Select podcasts offer continuing medical education credits for healthcare professionals.

We provide perks to all posted podcasts by linking content, so you can drink in more if you choose. The COVID-19 pandemic has altered our lives in so many ways. We have added many safeguards, yet other important practices and routines have fallen by the wayside. In this series, we will examine and discuss what we have been missing. This episode involves food safety. In the United States, food recalls by the USDA and FDA have fallen sharply. In France, the number of foodborne outbreaks decreased by more than 40%. Is this due to better safety systems or a lack of reporting and oversight? In this first podcast of the series, we will talk with Dr. Ben Chapman.

01:17

Dr. Chapman is a professor, food safety specialist, and head of the Department of Agricultural and Human Sciences at North Carolina State University. His areas of expertise are consumer, retail, and food safety culture, home food preservation, and communicating food safety risk-reduction messages. As a teenager, a Saturday afternoon viewing of the classic cable movie *Outbreak* sparked his interest in pathogens and public health. With the goal of less foodborne illness, he and his action groups, Safe Plates, FoodCoVNET, and STOP Foodborne Illness, design, implement, and evaluate food safety strategies, messages, and media from farm-to-fork. Through reality-based research, Chapman investigates behaviors and creates interventions aimed at amateur and professional food handlers, managers, and organizational decision makers, the gatekeepers of safe food. Ben co-hosts two podcasts *Food Safety Talk* and *Risky or Not*, and publishes the popular food safety blog, barfblog.com, as well as participates in social media. Hi, Dr. Chapman. Welcome to *On Medical Grounds*.

Dr. Ben Chapman:

Wow. Thank you so much for inviting me, Jane. I'm really glad to be here.

02:46

Dr. Jane Caldwell:

As noted in our introduction, food recall and outbreak numbers have plummeted during the pandemic. Do you have any hard data or theories to explain this trend in both the U.S. and other countries such as France and the Netherlands?

Dr. Ben Chapman:

Yeah, so I did a little bit of preparation for our chat today. I went back and looked at a series of recalls year-over-year, going back to 2017. I think before we get too far into the details, one thing that I think is really important for us to think about, especially in the U.S., is that we have two different regulatory bodies that are both responsible for aspects of the food system. That also are part of the recall management world, for lack of a better term. So we've got USDA's Food Safety and Inspection Service (FSIS), and they regulate everything that is meat and poultry related. So everything that has those products and they have some egg products and then an outlier of catfish. Why catfish is there is probably a discussion for another podcast.

Dr. Jane Caldwell:

Sure.

Dr. Ben Chapman:

But everything else that's food that's not of what I just mentioned, FDA regulates. What I think is really interesting is if we look over the course of the pandemic, there is certainly a measurable drop in USDA FSIS recalls. So I'll rattle this off, and I know that this is a podcast and people don't have numbers in front of them, but in 2017, there were for food safety reasons, 145 recalls from FSIS. In 2018, 133; 2019, 130. So in that 130 to 140 range is what we would expect to see annually, and then in 2020, there were 50, and in 2021, there were 54. So over less than half if we look at just FDA, or, sorry, just USDA Food Safety Inspection Service, just those meat and poultry ones.

But if we go to the other side of the food safety world and FDA, it's a more complicated and, I think, nuanced story because, in 2017, there were 105 recalls that FDA had for food safety reasons; 2018, it was 285; 2019, it was 224. 2020 in the midst of the pandemic, that number of recalls actually shot up to 364. It's actually the most amount of recalls that we've ever seen recorded by FDA. In 2021, it was back to 189 and these numbers were as of November. So I think there's more to this than just a plummeting number situation. There's something else going on here, and I think we have to look across the different regulatory agencies to really get a better story about it.

Dr. Jane Caldwell:

Mm-hmm (affirmative). Mm-hmm (affirmative).

05:45

Dr. Ben Chapman:

One thing I also do want to highlight before we get into what I think are the "whys" here, is that there are lots of reasons why food gets recalled. So what I focus on is primarily foodborne illness, things like *Salmonella* contamination or *Listeria* in spinach, something that's very current right now that we see happening in the U.S. But there are other reasons why we might see recalls, including things like foreign material, plastic, glass, which certainly is serious, but it's a different kind of recall. But the other, probably really big reason that we see, in fact, the majority of recalls if we look across both agencies, is for mislabeling of food. So it usually has to do with allergens not appearing on a label. So, for instance, you might have a recall for a food that you wouldn't expect to see soy or milk proteins in, but either because of mislabeling or potentially because of cross-contact it leads to a recall.

So if we took out all of the allergen reasons, it looks very similar. So, in fact, if we look at 2019 and FSIS, there were 94 recalls if we did not look at allergens, and it dropped to a third of that in 2020 and 2021,

32 in 2020, and 38 and 2021. So I think that there definitely is, to your question at the start, there certainly is a dramatic drop in USDA recalls, but that drop isn't the same in FDA. If we take out just allergen recalls, we actually saw an increase again in 2020 from FDA. They went from 141 recalls in 2019 to 181 in 2020, so I guess it's more nuanced than a sharply fallen recall, and really, we have to get into the "whys" of why things are recalled to really, I think, examine this issue.

Dr. Jane Caldwell:

Let me make sure I understand; are allergen recalls down as well as foodborne pathogen recalls?

Dr. Ben Chapman:

At USDA for those meat and poultry products they are, but for FDA products, they really are not.

08:36

Dr. Jane Caldwell:

Mm-hmm (affirmative). Mm-hmm (affirmative). Okay. So do you think the pandemic has caused food safety surveillance to become more lax in the U.S.?

Dr. Ben Chapman:

So I think that it's even more nuanced than that. So the surveillance issue only tells us whether there's a foodborne illness or an outbreak that's going to trigger a recall. A mislabeling of allergens, it has really very little to do with surveillance; it's all about individual companies or firms realizing maybe having a complaint from a customer saying, "Oh, this doesn't have the right label on it," or seeing that something was fully mislabeled, and they withdraw it from the market proactively. So I think certainly, to your question, Jane, the challenges around surveillance are there.

Over the course of the pandemic, the very same public health officials that we would ask to conduct foodborne illness outbreaks were shifted to, it certainly at that point, and probably still today more important issue of how do we manage a pandemic? So we didn't increase the funding towards public health in the midst of the pandemic. So there're the same number of positions and the same number of bodies that are dealing with this on a day-in and day-out basis, but now have a much bigger problem and different problem from foodborne illness. So something has to give. You're not able to do the same level of inspections if you are now managing a pandemic at the same time.

10:16

Dr. Jane Caldwell:

Sure. Well, here's an example. So in March of 2020, the FDA announced that it was temporarily suspending most foreign inspections of food and other products it regulates. So wouldn't that affect U.S. consumer safety, as many of our fruits and vegetables and spices are imported?

Dr. Ben Chapman:

Yeah. It certainly has the potential to impact that. What I think is the next part of that story is soon after, in April and May, many regulatory bodies started to figure out ways to use things like virtual inspections, further reviewing of materials, doing additional testing of incoming product in lieu of having boots on the ground, and looking at those product inspections, and inspecting those facilities to protect their inspectors. But I do want to point out that was not the case, and this is where I think it's really important to think about this in the difference between FDA and FSIS; FSIS never stopped having inspection of meat and

poultry products in plants here in the U.S. There certainly were challenges because there were outbreaks and clusters of illnesses in those facilities, but it's not like if I look at that number of going from 131 recalls in 2019 to 50 in 2020, that can be explained at all by, "Well, there just weren't inspectors in the plants," because they were there. That did not change at all.

11:50

Dr. Jane Caldwell:

Mm-hmm (affirmative). Mm-hmm (affirmative). So what are your recommendations for safety when going to the grocery store?

Dr. Ben Chapman:

Well, so for me, the pandemic really hasn't changed anything. I'm always looking to buy foods from reputable sources, from a place that I recognize. That doesn't mean going, only buying foods at grocery stores that only deal with large firms. I certainly shop at a farmer's market where I can ask questions of farmers, and that really hasn't changed throughout the pandemic. So one of the big things that really try to do is make sure that I'm looking to buy from companies that say they do a good job for food safety. I ask a lot of questions. I might be one of those worrisome type patrons of a grocery store because I'm constantly asking questions of the produce manager or managers about sources. I'm looking for notification of recalls. I sign up for all the shopper alerts and notification systems, but it really hasn't changed over the course of the pandemic. I was doing that before and I continue to do that.

Dr. Jane Caldwell:

Well, I know a lot of shoppers during at least the early portion of the pandemic were doing things like bringing their groceries home and washing the packages with bleach and dipping their produce in chlorinated waters. Are these things necessary?

Dr. Ben Chapman:

I'm going to give a really quick answer on that, and it's no, it really isn't. If we look at SARS CoV-2 as a virus, and we've been fortunate here at NC State to lead a large project, but be part of a series of projects that the U.S. Department of Agriculture funded to look at the impacts of COVID-19 on the food system, and really try to answer those questions explicitly that you're asking, Jane, about should we be spraying bleach on our packages? Should we put our food in quarantine when we purchase it at the grocery store? What we've learned over the worst of the last 22 months as we've learned more about this virus is that this pandemic is really an aerosolized mediated pandemic, that the shared air is drastically more important, hundreds of times more important, thousands of times more important, than fomites, surfaces that the virus may be deposited on, because the mechanics of how we get infected from this virus are we need to breathe it into our respiratory system, for that's the vast majority of the millions of cases of the virus are from that.

So for that to happen, it's very unlikely that we move from a virus that's deposited on a surface to our hands, to our mouth, to our respiratory system. Certainly, we have no indication whatsoever of any cases of the millions of cases of COVID that we've seen throughout the world, that any of them are foodborne. So paying attention to our food as a source, it's not necessary. I say that as someone who studies foodborne illness, but also someone who's spent a lot of time over the last two years trying to really ensure that that's not the case. Certainly, the virus can persist on surfaces, but we know that it doesn't transfer very well. There's a dilution effect of transfer, and then to aerosolize it again from my hands or from a surface, it's

really, really unlikely. So I think we've seen a shift away from that paying attention to surfaces to food itself, and really, we know that where people are getting sick or just spending time with other people unmasked in shared air environments.

16:01

Dr. Jane Caldwell:

Now, recently in China, investigators have found COVID-19 virus in frozen foods. Would you care to comment on that?

Dr. Ben Chapman:

Yeah, absolutely, I'd be happy to. I think it's important to qualify this, in many cases that we've seen what has been shared outside of China, they've not found infectious virus particles, but they've found RNA from the virus. So I think it's an important part of the story here. So I would expect if we're sanitizing, or even as the virus we know can persist, but over time the virus itself degrades, but the RNA may still be recoverable by swab and then tested through PCR. It doesn't tell us whether it's likely to infect somebody. So what's been reported is really about PCR viral RNA. But even if there were infectious virus particles found, it still goes to that challenge that I talked about earlier, which is to get the virus from that food package into my respiratory system is like the lottery.

So although the Chinese authorities have reported finding it associated with foods, they haven't really been able to demonstrate certainly the consumption of food as being a risk factor, but even really the handling of food is being something that would be of concern because where infections are coming are from people within the food system maybe interacting with each other. So early on in the pandemic, I think there's still pretty good evidence that there's passing of this virus from person to person in food settings like a wet market in China. But finding the virus particles on the food in those settings isn't really the risk factor. It's people that have gone to those food settings that have shared that air and potentially had aerosolized virus from people-to-people transmission out there. But I think the more we look for the virus on food setting surfaces, the more we're going to find it, but really, we don't have very good evidence that it's a source of risk of transmission.

18:36

Dr. Jane Caldwell:

Mm-hmm (affirmative). Before we close today, is there anything that you would like to add that I didn't ask?

Dr. Ben Chapman:

So, I think I'd like to go back to where we started about recalls and really just highlight the challenges that the food industry has had over the course of the pandemic. One of that is just changing supply chains and pressures on that. There certainly have been labor challenges that everyone in the food industry, and I would say the broader food sector, including inspection, has dealt with, and that certainly could lead to why we might see challenges and recalls. Mislabeling certainly could be a mistake within a food system, but it also could be just really enhanced by not having enough labor, not having trained employees, or even stretched because of clusters of illnesses that are existing in those essential settings.

I think that some of that's been lost in, not your discussion with me, but our collective discussion over the course of the pandemic is that the mechanisms that we've put in place to manage food safety have faced

just unprecedented pressures by how do we separate people within those systems because our systems were not built to manage aerosolized viruses, and then respond over the course of a 20, 22-month process to make sure that we're able to put together food of high quality and safety, and also have it inspected in the way that it was before?

To me, I think this discussion's lost if we don't think about the changing face of the food industry and how the food industry's had to deal with those pressures and the inspection regime. So that also, I think, plays into why we might have seen increased recalls in some cases and decreased recalls in other cases because they may be slipping through the cracks because of a lack of labor and change. But the types of foods that are being produced and the way that they're being reproduced may actually be reflected in less recalls because some of the foods out there are safer. I think it's, unfortunately, too early for us to really know what the right answer is on that.

Dr. Jane Caldwell:

Well, Ben, thank you for taking time from your busy schedule to discuss food safety and surveillance during the COVID pandemic. We will provide listeners links to your podcasts and other sites you deem important for food safety. Thank you for listening to the *On Medical Grounds* podcast. We know your time is valuable. The resources that were referred to in this podcast can be found at onmedicalgrounds.com. Please be sure to check the subscribe button to be alerted when we post new content. If you enjoyed this podcast, please rate and review it and share it with your friends and colleagues.