

NINA MOINI: Well, for weeks, the US has been dealing with an unpleasant public health mystery. The cyclospora parasite has infected thousands of people across the country. The largest cluster of cases is in Michigan and other Midwestern states, not including Minnesota. Now, the Food and Drug Administration tracked that outbreak to a lettuce farm that supplies Taco Bell. So Taylor Fresh Foods, the lettuce company, recalled several of its salad mix products.

But the case isn't closed exactly. Joining me now to talk about the parasite and the public health response is Michael Osterholm. He's director of the Center for Infectious Disease Research and Policy at the University of Minnesota.

Thanks for your time, as always.

**MICHAEL
OSTERHOLM:** Thank you. Good to be with you.

NINA MOINI: Lots of people are wondering about this. It's just sort of like been in the background. And every time I go to eat something, I do wonder, should I eat this? Am I supposed to eat this? So I'm really glad that we have you here.

Minnesota Department of Health said there's been 66 cases here in Minnesota since May. That number is about what's expected, though, I understand in a typical year. At what point are cases of cyclospora infection considered an outbreak?

**MICHAEL
OSTERHOLM:** Well, an outbreak actually refers to the fact that it's occurring from a single reason, for a field that's contaminated, that's been harvested, et cetera. The cases that you're talking about that they're seeing now, or have through the beginning of the year, are cases that usually occur in travelers who go to some foreign country, either through water, food contamination, pick it up there and bring it back. And so that's why we have this background of cases.

Where we've had outbreaks is when we've imported, largely, product from around the world, particularly central and South America. And it could be any number of things, from berries to leafy greens, et cetera. And that's what we're really talking about now, is an outbreak where a substantial increased amount of contaminated produce came into the country and was consumed.

NINA MOINI: How do agencies then track and investigate this type of situation when things are being imported?

**MICHAEL
OSTERHOLM:** Well, for your Minnesota listeners, let me just say that they should feel good about the fact that the Minnesota Department of Health is considered really the premier foodborne disease investigation group in the country. They are the A squad, and they are always on top of it.

And in terms of this current outbreak, we just didn't have cases in Minnesota that were associated with this product that was ultimately found to be responsible for the Taco Bell cases and likely could be other cases in the community besides Taco Bell. We didn't have those cases here in Minnesota, so they were not part of that major investigation. If they had been, I think they would have solved it by now.

The issue that really comes up here is what I think right now is the fact that we're probably seeing multiple outbreaks. We had that happen in 2018, where we had an outbreak at McDonald's and we had an outbreak in Del Monte fruit trays. Totally separate sources. No overlap. But initially, when the cases first started coming in, because we have no way routinely to genetically test these organisms to see if they're related, like we do with salmonella and E coli and so forth. And so it was unclear that they, in fact, were not related. It was only with the good work of the Minnesota Department of Health in 2018 that they in fact, did figure out, no, these are two totally separate outbreaks.

I think what we have going on right now was, in fact, the lettuce involved from Taylor Farms that was involved in the outbreaks in Michigan, Ohio, Indiana, Kentucky, and so forth. But I don't think that they're responsible for a number of the cases that are occurring now. I think there's another product that's involved, and we're just going to have to, unfortunately, time will tell as we investigate those cases.

NINA MOINI: Yeah, because Taylor Farms has come out then and said that the FDA apologized to the company over what they called a false positive test. It said there had been no confirmed tests. What's going on there, do you think?

MICHAEL Well, first of all, let's be really careful here about what's a political response and what's a scientific response.

OSTERHOLM: There is no question that Taylor Farms is involved. Epidemiologically, they're very strongly implicated at Taco Bell. And that is not without question.

What had happened was as samples come into the United States from countries, such as Mexico, where that product was grown, there is a routine testing program where very, very limited number of samples are taken just to test for different pathogens or infectious agents that could cause illness. And they had a sample from that. It was not part of an outbreak investigation. And they initially said that it was positive and then came back and said, oh, actually, it turned out to be a false positive.

That has no bearing whatsoever on whether Taylor Farms was involved with this outbreak. They continue to be investigated. And I can't speak to whether the FDA apologized, but my sense is that would be a very unusual situation for a governmental agency like the FDA to apologize for correcting a lab finding.

NINA MOINI: How effective do you think the public health response to cyclospora has been, given what you just mentioned? It seems very confusing.

MICHAEL It is confusing. And let me just say that I have served a role in every presidential administration dating back to Ronald Reagan up through Biden. During the Trump first administration, I was a science envoy for the State Department. My job has always been to call balls and strikes. I'm not here from a political leanings, whatever.

OSTERHOLM:

But I have to be very clear and say that the cuts that have occurred in this administration, and some of it with DOGE itself, has really crippled us in terms of our ability to respond. I mean, the senior leadership in the laboratory science area at CDC and parasites were all let go, basically. We've had just a number of issues where there's a shortage of public health workers, and so it has hindered this investigation. There's absolutely no question about it.

At the same time, this is a complex outbreak investigation, particularly when you have an agent like cyclospora that we don't have a good genetic test to tell you, are these strains related. So if I get two people with infection, are they of the same strain or they do not. That's an important piece. And so it's made this outbreak investigation harder to understand.

But I am convinced, again, that there are multiple sources. I think we could have several different products involved, and the lettuce just being one.

NINA MOINI: Yeah, could you tell us a little bit more, just for people to understand how foods end up carrying parasites like this, and if there are certain types that carry higher risk, certain foods?

MICHAEL OSTERHOLM: Well, let me just be really clear, first of all, that we all, I think, would agree leafy greens are part of a healthy diet and we surely encourage that. I think most people are surprised to know that in a given day in this country, there are 150 million servings of leafy greens, 150 million in one day. And so clearly, outbreaks like this are unfortunate. We wish they didn't happen. But on a whole, the vast majority of produce that is consumed in this country is very safe.

And in fact, relative to the Taco Bell outbreak, we don't have any evidence of transmission in Taco Bell units west of the Mississippi at any time in the last six to eight weeks. And so even there within Taco Bell, it was regionally distributed to that area of the Michigan, Ohio area and causing the outbreaks there. So I want to assure people that the vast majority of produce that they eat in this country is very safe. We're surely not seeing 150 million cases a day in this country, as would relate if, in fact, this product was so challenging.

I think the way that it gets contaminated is we now grow products around the world to make sure that we have product availability 365 days a year. One of the areas we grow in is Central Mexico. And despite best efforts by the companies to assure that the irrigation water they use is safe, et cetera, sometimes that happens where it's not.

Cyclospora is a very unusual infectious agent causing diarrheal illness in that it basically only grows in humans, number one. Number two, once it's excreted, somebody who has diarrhea, who is sick, that particular organism still needs about 10 to 14 days outside of the human body in the environment to mature before it then is infectious for someone else. So that's why you often hear we say there's not person-to-person transmission.

And so most often, our concern is either in the workers in the fields that may actually be infected. But again, remember, it still takes the 10 to 14 days after they excrete this before they can transmit. But then that leads to the environment itself. And is water used in irrigation a primary source that gets on the plant? We don't know.

I think one of the things that's been challenging for me is because I have been so involved with cyclospora over the last 20 years to see how many armchair experts are today who are out espousing on what you can do to protect yourself. And cutting off a head lettuce, the first three leaves and then washing it, there are no data that support that any of those means are really effective.

And ironically, the safest product we still see on the market is the triple washed product that comes in bags from these companies. And so I think that's one word of advice that people can take is to say that they still can eat leafy greens on the store shelf right now and it doesn't necessarily mean that they're at risk.

NINA MOINI: OK. That's really good to know. Thank you for breaking this down and your expertise. We always appreciate your time.

**MICHAEL
OSTERHOLM:**

NINA MOINI: It's epidemiologist Michael Osterholm, who directs the Center for Infectious Disease Research and Policy at the University of Minnesota.