Reese Tierney: And I got to see firsthand what a grassroots public health project looks like, where you involve the community. We worked at a community hospital, and that was the first time that I was like, "This is actually one of the coolest things I think I've ever seen, to implement something that you learn and then actually it work in a community."

Speaker 2: This is the ORISE Featurecast. Join host Michael Holtz for conversations with ORISE experts on STEM workforce development, scientific and technical reviews, and the evaluation of radiation exposure and environmental contamination. You'll also hear from ORISE research program participants and their mentors as they talk about their experiences and how they are helping shape the future of science. Welcome to the ORISE Featurecast.

Michael Holtz: Welcome to the ORISE Featurecast, as ever, it's me your host, Michael Holtz, in the Communications and Marketing Department at the Oak Ridge Institute for Science and Education. And I'm joined by my co-host, Matthew Underwood. Matthew, we are talking to a Future of Science Award winner today. I'm so excited about this.

Matthew Underwo...: Yeah, I'm excited for this conversation too. I love talking to the participants and then, the exciting research that they're doing, and this is just another exciting conversation that I'm looking forward to.

Michael Holtz: Awesome. Well, without further ado, let's get started. So Reese, welcome to the ORISE Featurecast. We're so glad to have you here.

Reese Tierney: Yeah, thank you. Thank you for having me today. Very excited.

Michael Holtz: So you were an ORISE Future of Science Award winner. How did it feel to receive the Future of Science Award?

Reese Tierney: So I will say it was really quite an honor, especially when you look at all of the ORISE fellows that there are in the program. I had the opportunity to meet some of the other award winners, as there's a few categories. So I won the Post-Master's one, but I met with the undergraduate one and the graduate degree winner. And there's just a lot of hard work that has been done in general in the ORISE fellowship. So it's really an honor to be even nominated for something like this. So I would just say, yeah, I'm just really honored and it was really nice to be recognized and I really thank ORISE and my mentor for the opportunity to speak and to win that award.

Michael Holtz: That's fantastic. Well, congratulations on behalf of Matthew and myself. I wanted to ask you, Reese, where are you doing your fellowship? And what is your research focus?

Reese Tierney: Yeah, definitely. So I actually just finished up my fellowship. I'm now a full-time employee with the CDC, but I was with ORISE as a fellow for about a year and a half. And I was with the enteric disease epidemiology branch at the CDC, which is where I am now.

So I just went from ORISE to a full-time epidemiologist position. But yeah, the enteric disease epidemiology branch, we focus on foodborne illnesses, mainly in the United States. So there's quite a few teams that make up our branch. But I'm on the analytics team, and I was, as an ORISE fellow, on the analytics team. And my research really focuses on kind of a wide range, but I would say mainly source attribution. So understanding where foodborne illnesses are coming from, which food categories we see the most of for certain pathogens. I would say that's my number one research topic.

Michael Holtz: That's awesome. And a very important topic it is, right, because obviously, everyone eats, everyone needs food.

Reese Tierney: Exactly.

Michael Holtz: And we want to make sure that the supply chain is safe and people don't get foodborne illnesses, so all of that is very important.

Reese Tierney: No, it's also a very interesting field. I will say, as an ORISE fellow, the whole time I've been here, I've only ever worked on foodborne illnesses, so maybe I am biased, but I find it quite interesting. So yeah, I really enjoy it. I really enjoyed my fellowship and I really enjoy my continued career in foodborne illnesses.

Michael Holtz: Awesome.

Matthew Underwo...: That's awesome. You mentioned, when you were talking about your awards, you specifically mentioned your mentor and was sure to thank them. Kind of talk about your mentor at ORISE and how that impacted your time.

Reese Tierney: Yeah, definitely. So I will give a full shout out. Erica Rose was my mentor during my ORISE fellowship. She was the team lead of the analytics team in E-Dev. I am very lucky to have had Erica as my ORISE mentor. So not only did she kind of play the role as a mentor, but she also gave me the opportunity to grow my skillsets. And she was really big into me growing into the field that I'm in. So I started in my fellowship as an assistant, so doing administrative work, not doing a lot of epidemiology. She really guided me and helped me get into the analytical epidemiology, and she kind of made me feel comfortable, helped me grow my skillset, and kind of let me grow in a way that was very guided. So I think that, when you look at my trajectory from being an assistant to now a full-time epidemiologist, Erica was very much the constant during that transition.

So she helped me gain confidence. She helped me get on projects that I maybe wouldn't have spoken up for, because she would be like, "I have a great person who could help you." And then, she knew, "This is what you need to do, this is what you're going to learn," and just help break down this really overwhelming experience it can be sometimes being in a science career you're not used to, right out of college. So she helped me in multiple ways, I would say. Confidence, gaining my skills, and just kind of helping me get my foot in the door and being my advocate when I was too shy or didn't know how I could be my own.

Michael Holtz: That makes sense. She sounds like a great mentor for sure. Reese, has science always been an interest for you, epidemiology in particular? Or was this something that you sort of discovered as you were going through school?

Reese Tierney: It's interesting, because I always have been interested in science. I loved animals, so life sciences, was super interested in. But funny enough, actually, history is the reason I got into epidemiology. I was watching the History Channel, I think this was when I was in high school and they talk about the Black Death and a bunch of plagues. And I started to become very interested in just the projection of disease through history, which sounds a little odd, but that's kind of what led me to epidemiology. Because once I started to look into what is the history of disease, epidemiology comes up, and that turns into tracking. And then, that is kind what led me into being interested in public health. So yes, I've always been interested in science, but I like the bridge of history and science together, which is what really got me into epidemiology. And it kind of just grew from there.

Michael Holtz: Yeah, well, and that whole history of realizing that in, I think it was England, right, where the streets were dirty and they figured out that clean water would actually help reduce diseases and all of that kind of stuff just really is fascinating to see that evolution from what we didn't know to someone said, "Hey, there's a problem here. We need to figure that out."

Reese Tierney: Yeah, especially with development too, when you look at the germ theory and the development of vaccines and immunity, it's just a very encompassing topic that I find interesting for multiple reasons. So I think just the general interest of overall is kind of what got me to epidemiology.

Michael Holtz: Absolutely. So after your time at the CDC, so you're full-time at the CDC now, where do you see yourself in five, 10 years and beyond?

Reese Tierney: That's a good question. I think I definitely see myself still in epidemiology. I could also still see myself in foodborne illnesses. I've been almost three years now into foodborne illnesses, and it's kind of a niche topic that I found myself in and I really enjoy it. I do think I would like to, at some point, transition into some more field work. So actually working with the public, doing interviews, collecting samples, just kind of doing a little bit more in the field work, where now, I'm a little bit more higher level data analytical. So I think I see myself having a career that includes both your traditional in-the-field work epidemiology and also your high level writing your reports, making your estimates. So hopefully, a bridged career, where I can do both. That's what I would like to do.

Michael Holtz: Awesome.

Matthew Underwo...: That's awesome that you have that ability to do both, but you talked about during, especially your experience with ORISE, how you are more of the data analytics. Kind of talk about how science, of course, is collaborative, but talk about how that worked with you doing the data analytics and then, working with the other teams around you to kind of do the work that you're trying to get done or the research that you're trying to get done.

Reese Tierney: Yeah, so I will say one thing that I have learned about being in the public health career is that it's a hundred percent a collaboration, we're all working together. So we have multiple teams within our branch, and each team, not all of them, but most of them, have their own surveillance system. So even as simple as just working with that team to use their surveillance data, just that alone, not even getting into the project yet, but I think that a lot of the projects that I have done, it is from people that have expertise in different subjects within foodborne illnesses and outside of foodborne illnesses.

So I think it's one of those things where you're right, even though I'm in a data analytical role, even in analytics, I find myself working with people all across public health. And it's interesting, and I'm lucky, because the expertise is so wide. There are so many things that people know and there's so much to learn every single day that, if you didn't have that collaborative approach, I think it'd be really hard to excel in the career that you're in, because it's impossible to learn everything that's out there.

Michael Holtz: Right. And you can't do it all yourself, right?

Reese Tierney: Yeah.

Michael Holtz: Reese, have there been any obstacles that you've had to overcome to get where you are today?

Reese Tierney: Yeah, so I think that main one, which is something that ORISE really helped me through, was trying to figure out how I was going to support myself while I was getting my Master's. So I was really lucky that I was able to do my ORISE fellowship while taking night classes. So I think that that is a major obstacle, not being able to work or have an income while you're going to school. So I think I was really able to overcome that through the ORISE opportunity. They're very open to pursuing your education, while also working very flexible. So I've been very blessed to be able to work as an ORISE fellow and then also get my Master's.

Michael Holtz: Awesome. And I know we're running out of time, so I want to ask you the last question that I ask most fellows is, Reese, what brings you joy?

Reese Tierney: So I will say, this just sounds like such a nerdy thing to say, but I would say learning things and then, also, being able to directly use them in the field, when I am working and not even just working in general, and I get to do the things I learned in school on a real life basis, that is actually one of the coolest things that I think I'm able to do. So I think just being able to practice what I like doing and being able to learn through a job. I'm lucky enough to be able to pay to do something I really, really enjoy. So that was what bring me joy.

Michael Holtz: Awesome. Is there an example of that, of something that you learned and you were like, "Oh my gosh?"

Reese Tierney: Yeah, so I think my biggest one is I did a study abroad program when I was in my undergraduate and I was a public health major, and a lot of those concepts are very high level, you don't see them, but grassroots is something I learned. And then, I went to Ghana with one of my Ghanaian professors, who's from Ghana, and I got to see firsthand what a grassroots public health project looks like, where you involved the community. We worked at a community hospital, and that was the first time that I was like, "This is actually one of the coolest things I think I've ever seen, to implement something that you learn and then actually it work in the community." So I think that is one example where I kind of learned public health is kind of the real deal. It actually does something.

Michael Holtz: It does something and it helps people, right?

Reese Tierney: Exactly.

Michael Holtz: I love that. Well, Reese Tierney, thank you so much for taking this time to let us get to know you and ask you some questions about life at the CDC and your research focus and a little bit about what happens next. I really appreciate the opportunity to get to know you a little bit.

Reese Tierney: Great. Yeah. Thank you so much for having me. I really enjoyed speaking with you both.

Michael Holtz: Awesome.

Reese Tierney: Thank you again.

Michael Holtz: Thank you so much. Have a great day.

Reese Tierney: You too. Bye-bye.

Speaker 2: Thank you for listening to the ORISE Featurecast. To learn more about the Oak Ridge Institute for Science and Education, visit ORISE.ORAU.gov or find us on Facebook, Twitter, and Instagram at ORISEConnect. If you like the ORISE Featurecast, give us a review wherever you listen to podcasts. The Oak Ridge Institute for Science and Education is managed by ORAU for the US Department of Energy.