Rural Community Health Science, Policy, and the Future: Episode 1

Ricky Telg: 0:04
This is Science by the Slice, a podcast from the University of Florida's Institute of Food and Agricultural Sciences Center for Public Issues Education. In this podcast, experts discuss the science of issues affecting our daily lives, reveal the motivations behind the decisions people make, and ultimately provide insight to solutions for our lives.

Phillip Stokes: 0:33
My name is Philip Stokes, Education Coordinator at the PIE Center. I'm also joined by Dr. Lisa Lundy, who is co-hosting this podcast with me, and so I want to take a minute to just introduce the topic of this episode and who we're joined by. So this episode is also hosted in conjunction with the Southeastern Coastal Center for Agricultural Health and Safety, and earlier this year we had a State of the Science meeting and the topic for that meeting was rural agricultural health and the health needs of the agricultural workforce, and so during that meeting we had really good conversations with some of our researchers and educators that were a part of that meeting, and we have some of them here with us today. So we wanted to do a podcast to follow up on some of those topics and conversations, and that's what we're doing here today.

Phillip Stokes: 1:25
So, in addition to myself and Dr. Lundy, I'm joined by Dr. Lauri Baker, as well as Dr. John Diaz and Dr. David Buys, excuse me and so I want to give everyone just a minute to introduce themselves and just go around and say who you are, a little bit about your background and kind of your research areas, just real casual. Let us know who you are, and so everyone who's listening has your voice knows who you are. And then also, we are video recording this podcast as well, so you'll be able to watch it on our YouTube channel as well. So, Dr. Lauri Baker, you want to start us out?

Lauri Baker: 2:03
Sure Happy to start. I'm an Associate Professor in Agricultural Education and Communication here at the University of Florida and I have a 65% research appointment and 35% extension appointment. Much of those appointments and that work happens through the PIE Center and so that's why I'm affiliated with this project. As far as research interests, even before I came to the University of Florida I was looking at zoonotic disease and communication issues surrounding that and the opportunity to come here. Those issues have certainly increased and there's been a lot of opportunity for digging in deep on that research and what it means for rural communities and rural health, particularly agricultural workers.

Phillip Stokes: 2:47
Great, thank you so much. All right, Dr. Diaz, how about you want to go next?

John Diaz: 2:53
All right, so I'm Dr. John Diaz. I'm an Associate Professor and Extension Specialist in the Department of Agricultural Education and Communication. I also serve as a president of a group called CAFE Latino, which is the Coalition of Florida Extension Educators for Latino Communities. Really, my work focuses on increasing the competency and capacity of universities, extensions, nonprofit groups to serve Latinos and Latina immigrant groups in the United States but across the world, and so I've been obviously, because of the demographics of farm workers in the United States, I've been working heavily in that space, helping to better understand how groups like Extension can help to better serve the agricultural workforce in our country.

Phillip Stokes: 3:37
Thank you and Dr. David Buys.

David Buys: 3:40
Hi y'all, I'm David Buys. I served for 10 years 10 years and one month actually as the state health specialist for MSU Extension, Mississippi State University Extension Service. I am currently in an Associate Vice Provost for health sciences role and interim head of campus at MSU Meridian. So I still have a line back to Extension and will always continue my work with extension. My time with extension has really been peppered with a lot of different issues.

David Buys: 4:13
I often explain to people that what family practice is to medicine I am a state health specialist to attention to public health, to attention to public health, and that is that, like a family practice doc may see a three-year-old with an ear infection at 8 am, their 8:30 appointment might be an 80-year-old with dementia and their next one might be a 40-year-old with hypertension. Well, my public health practice has been just that diverse because we, as extension professionals, take what issues are present and walk in the door, if you will. Among those issues has been farm stress and issues of mental health, mental challenges that our agricultural producers face. So I've spent quite a bit of time working on and around that the last six, seven years and I'm delighted to be with you all to talk more about this broad topic.

Phillip Stokes: 5:08
Well, thank you, Dr. Buys. So those introductions were actually really great to introduce what we're going to be talking about today. So, of course, last but not least, Dr. Lisa Lundy, if you can maybe introduce yourself as well, tell us your affiliation with the Southeastern Coastal Center for Ag Health and Safety and then kick us off and we'll get the conversation going.

Lisa Lundy: 5:26
All right, hi, I'm Lisa Lundy. I'm a professor in the Department of Agricultural Education and Communication and I'm also part of the Outreach Core for the Southeastern Coastal

Center for Agricultural Health and Safety and was a beneficiary of a conversation along these lines among this group earlier this year and very excited to share that conversation and a little bit of that here with you today. So we're going to actually kick off with Dr. Diaz and Dr. Diaz, if you would tell us a little bit from your perspective. Of course, we know that we just heard from Dr. Buys how varied it is. But describe the agricultural workforce too. Who are our agricultural workers in terms of just demographics and makeup, and then what are some of their unique healthcare needs?

John Diaz: 6:16
Yeah, so the makeup and demographics of the agricultural workforce has been changing for some time. If you look back at the 50s and 60s, farms were predominantly farmed by families, so there was a lot of family operators and family farm workers. But as time has passed, we're seeing a lot of those family farms going by the wayside and most of the workforce is externally hired. Nowadays, we're seeing most of those external hires being either immigrants who are living in the state that they reside in or are temporary workers through an H-2A visa program. Nowadays, even just the sheer number of farmers and farm workers is down. So back in the 50s it was around 10 million and we're just over 2 million now, with about half, if not more, being hired external workers. And so those higher external workers, the H-2A program. Back in 2022, which is the last data I had they were contracting about 372,000 farm workers, and that does not even take into consideration the large segment of undocumented workers that work in the agricultural industry.

John Diaz: 7:24
So we couple that and thinking about healthcare. There's a lot of healthcare needs that are tied to the realities of those workers, and so, because they're part of a really arduous and rigorous work type, they're exposed to a lot of different risks, whether it's pesticide exposure, heat exposure, the plethora of other risks that come with farm working. In addition to that, because their life is somewhat turbulent, whether they're a temporary worker, an immigrant or just a domestic worker working seven days a week, as Dr. Buys said, there's a lot of issues related to mental health, and so it's really the scenarios and the needs within agricultural workers is very complicated, which makes serving them and understanding how to serve them complicated onto itself.

Lisa Lundy: 8:13
Yeah.

Lisa Lundy: 8:14
Thank you so much. That gives us such a great overview and I know you've painted such a picture of the workforce and I know you've been involved specifically in some outreach health clinics for agricultural workers. In your experience, what are some of the things that prompt someone to come in, or maybe what are some of the things that present in those settings as far as health care issues?

John Diaz: 8:41

Yeah, so one of the biggest health care issues that we see on a regular basis is issues of chronic disease. Because these farm workers are of low socioeconomic status, they cannot afford to eat fresh fruits and vegetables and so they're really relegated to eating a lot of processed foods, and eating a lot of processed foods within a very tight schedule, so if it's something they've prepared themselves or going through a drive-through when they have five minutes to spare. So, for example, with a lot of the farm workers that we're seeing, their A1C levels are at astronomical levels, so A1C levels of 10, 11, 12, 13, 14, and 15, where prediabetes and diabetes are in the 5, 6, and 7 range. And so just trying to wrap our heads around what that looks like and why they're having these issues and again it comes back to kind of the realities of their life and their inabilities to access not only health care but those fresh fruits and vegetables and healthy foods that they would need to prevent them from getting issues like diabetes.

Phillip Stokes: 9:44
Yeah, you know, Dr. Diaz, you talked about. You brought up access right and the realities of their life, and I think a lot of times when we discuss healthcare, we think about being informed of the appropriate choices to make. We try to get these things taught to us in school as we're growing up. But, as you mentioned, these workers and this agricultural workforce they're coming from all over the place and so thinking about just access to information or access to health care, or access to healthy food, um, you know, knowing it, there are barriers that come in between that so what are some, Dr. Baker, I want to ask you what are some of the factors that influence the choices that people make when going about their health care?

Lauri Baker: 10:42
Yeah, absolutely. One of the models that we like to use a lot at the PIE Center in this kind of work is called the health belief model, and essentially in that model really there's an element of how much you believe you are at risk, or that you believe you're at danger, and so, thinking about some of the things that Dr Diaz says, you know, if you have grown up in a family that has always worked outside, has always been in potentially transient migrant communities where you were working seven days a week, you may believe that that's very normal and you may believe that you aren't at risk because those are practices that are happening all the time around you, and so people's willingness to take action on preventative health care is much lower if they don't believe that they're at risk, and so that's one of the things that we've really tried to look at in the PIE Center. We did five different surveys throughout COVID, and during that time one of the things that really kind of kept coming out in this data was that there was a real difference between rural and urban communities and their trust in science, and we found in many of our models that that was predictive of whether they would be willing to seek care, whether they would be willing to get a vaccine, so a preventative type of issue. They were also very, very influenced by the people around them and so, as we kind of heard Dr Diaz reference, many of these communities are Spanish speaking. They may have just different trusted information sources. They may not be listening to programming in English, and if that's the only way that we're delivering those messages, that could be a challenge.

Lauri Baker: 12:27
One of the other things that we've really seen, as I mentioned, kind of zoonotic disease being something that we've worked at a lot is recently we've seen, with climate change and other issues surrounding that, an increase in vector-borne diseases, and so just this past year, Hardy

Lauri Baker: 12:55
County in Florida had over 20 cases of dengue that were locally acquired, and so we just received a grant this week, actually hot off the presses, from the CDC and the State Department of Health to really dig deep into that issue and see.

Lauri Baker: 13:03
Prior to that, a lot of the dengue cases that we've been seeing in Florida were not locally acquired, meaning that while they were reported within the state of Florida, they actually, you know, were bitten by a vector overseas and then they came here and were diagnosed. So the locally acquired cases are a much bigger concern, right, and so, as we're starting to have some of those conversations, we met with Hardy County Department of Health and they said, you know, as they're going and having conversations with farm workers, there's a lot of cultural differences there and so they may be leaving doors open, they may be allowing livestock, chickens in particular in and out of the house, there may be standing water, things that we all know could be preventative actions. So, kind of tying back to that health belief model, we're going to go into those communities and have some conversations about their trusted information sources you know who are they listening to. What would make a difference in them taking some of those preventative actions, in this case toward preventing dengue cases?

Lisa Lundy: 14:12
Yeah, Dr. Buys, I'm wondering if you could follow up on that a little bit. We've talked Dr Baker really got us off to such a good start thinking about the health belief model and the things that you know, whether it's our own perception of the risk or even our own perception that we have the self-efficacy to do something about it. But in terms of things that are outside of agricultural workers' control, things that are in their environment that are impacting their health, can you talk a little bit about those things and some of the work you've done in that area?

David Buys: 14:44
Yeah, and I love that this question got pitched to me. I don't know that y'all know this and the listeners certainly most likely wouldn't. My doctorate was in medical sociology and I tell people, as you can distill that four years of education into this, this very simple statement, which is kind of like thank you, Captain Obvious, but that people can only choose from the choices available to them. And, and I think as we think about these, yes, absolutely we need to be understanding what motivates people to act. Why are people engaged in the behaviors internally? What drives those decisions they make?

David Buys: 15:18
But we've also got to work, as Dr Diaz has just said, upstream. We like to use that phrase as well a lot in the public health space. It's upstream of the problem. What's the environment where people are? What are they living in and working in? Um, there's a.

David Buys: 15:34
You know, the construct of the notion of the social determinants of health is not really new anymore, but it's so, you know, all things considered kind of in the grand scheme of public health history, it's a relatively new, new concept and that's really just the notion that these are the conditions and the environments where people are born, live, learn, work, play, worship and age that affect a wide range of things that can affect people's health. So again I'll say where they're born, where they live, where they learn, where they work, where they play, where they worship and where they age. So a wide range of things. We kind of group those into a fewer number of domains. Those are economic stability, education access and quality, healthcare access and quality. They were in built environment and in the social and community context. So you know as we think about those Dr. Diaz, and all of us have referenced the kind of pressure, the family pressure that many of these farm workers may face to continue to generate an income for their family, come from backgrounds that they don't have the education and didn't have the access to education you know previously or currently, to understand why these behaviors that are so important are important for them.

David Buys: 17:02
And then, once they are, are ill able to get to a health care provider that health care access and quality piece and if they are, it may just be a one-off urgent care kinds of kind of situation which better than but still may not be enough to help them fully recover and get back to the operation as quickly as possible. The neighborhood and built environment we know that housing for a lot of foreign workers is really compromised, and just that living standard can affect their ability. If we're talking about housing where spaces aren't fully sealed, there may be environmental risks that they face just due to their housing environment. And then their social and community context. Are they living in a community where the social norms are such that they would be compelled? Are these normalized behaviors? So the social determinants of health are absolutely a helpful way for us to think upstream of these behaviors that we want to promote, that we know are health-promoting. They're health-promoting behaviors, but they don't have the environment. Those choices are not available to them.

Lisa Lundy: 18:13
yeah, and as I was this, listening to what you're saying and thinking about, you know you can only choose from the choices available to you, and then, thinking about some of our agricultural workers, that those choices are not constant. They may be following um, moving to different locations, for, you know, different growing seasons. How does that further complicate and this is really for any of you your situation when those choices are always kind of in flux?

David Buys: 18:40
Well, I'll just jump in, you know, initially, and just say, just learning a new environment. And even if you go to a similar environment, the same environment, year after year, but you're only there for two months, three months, whatever the stint is, it's going to be challenging to really embed yourself and understand where to go to the clinic, where to go for that PPE that you might need, that's not provided by your employer. Just learning the environment is difficult and if your number one goal is to generate income for your current, your present living situation and to send back home, then you know those. These other things are really secondary.

John Diaz: 19:21
Absolutely, and I think what's what complicates that is just the, the financial landscape that's that's coupled with healthcare, and so you know a lot of these rural areas, the the only available healthcare options are either a so you know a lot of these rural areas the only available healthcare options are either a hospital which we see a lot of rural hospitals are closing or federally qualified health clinics.

John Diaz: 19:39
Federally qualified health clinics are a great initial option for a lot of these farm workers, but if they were to see a primary care physician and needed some follow-up care from a specialist, that's where we see a lot of the healthcare options stop. And so you couple the changing environment. You're migrating all over the place, and then it changes insurance based on state and legal status. It just makes it again the decision-making process. A lack of familiarity and awareness just makes it really complicated for them to know. And so at the end of the day, they know they need to work, they need to be there for their family and that's an easy decision that they know how to manage. And so that's what ends up happening, is they make decisions for their family before themselves.

Lisa Lundy: 20:20
Yeah Well, I mean we've we definitely have identified and I'm sure there's many more that we haven't identified some significant challenges in this From you all's perspective, whether it be communication, extension, health care delivery. What are some solutions that you've seen that you think are really working or have a lot of potential? Dr Baker, do you want to start us off from a communication standpoint?

Lauri Baker: 20:46
Sure, I'd be happy to do that. I think it's definitely one of those places where communication and education align pretty closely and it's hard to distinguish between those as a whole. But I also think one of the things we've talked a lot about the self-efficacy of ag workers in particular. But the other piece that we've also looked at is those surrounding them and those who may have more power or ability to affect the livelihood of agricultural workers. So you know, thinking of property owners and farm owners and working with them to also understand how they can provide better spaces, how they can

treat areas large scale, how they can help those people find health care opportunities and educate them, provide things in multiple languages and that type of thing.

Lauri Baker: 21:39
We're also working as a part of the Southeastern Center for Vector-Borne Disease. There are 17 different states and we're about to dig into North Carolina specifically, where we've seen an issue where the ticks in North Carolina are being testing positive for a lot of diseases but we're not seeing in rural health care the report of those diseases happening, and so we're going to go in and do some qualitative work to understand is this a diagnosis issue? Are those rural communities prepared to make diagnoses? Are they prepared to have those conversations and so perhaps it's an educational gap there. Again, we haven't gone in just yet. We'll go in this fall and hopefully learn more.

Lauri Baker: 22:23
But I think all of us have really talked about this holistic approach. It's not just one thing or another, and so I think, the more that we can look at the people surrounding these issues, the situation surrounding these issues and places where we can identify gaps in education and gaps in communication, and empower those that can make a difference to do that, whether that's through policy or whether that's through individual action, working through churches, working through schools In many cases children are kind of the gateway toward the education and communication outputs in those areas.

David Buys: 23:02
So I'll go the other direction from what I answered in my last question, which, you know, the last question I really dove in on the notion of going upstream and working at that contextual kind of level. But I'll go really even beyond the, just the individual level behavior. And that is really how do we change the hearts of the people and the things like grab people's heart, then you can grab their minds. And so one of the things that you all on this call know, but that our listeners may not, is that I worked last several years on a film project and I wish I could take credit for actually production of the film. I don't know how to turn a camera on, so I have to give credit to our, to my colleagues at the MSU TV Center for the actual work of the film development itself. But we developed a piece called On the Farm and we have a first season that tells the story of four farmers and their families and the stressors they face. And then we've got a second series now that's just out that premiered on our broadcasting affiliate here in July and what we found is that that film that really captures the stories, the individual level stories that are in a very raw and authentic kind of way is we show that around the state and around the region is having a tremendous impact on increasing or improving the understanding that those that have the ability to make decisions that would impact, possibly impact our farm workers their eyes are being opened in a significant way. Um, and an interesting story about that is when we started the project, before we had our first film, even in the bag, um, we had a significant buy-in since a buy-in from some of our farm organizations here in the state farm bureau, uh, being among them, and that, yes, great work on getting this out to our work with y'all, to get this out to our county association meetings. Um, and and once the film was complete the first season of

the film was complete what we? We started going down that road and trying to get them to make good on their commitment.

David Buys: 25:21
What we found is that those local farmers who would watch this and those that were like, say, the president, the president of their county board for Farm Bureau, would take a look at this and they'd say you know, that's really well done, it's impressive, but we live this every day.

David Buys: 25:37
We don't want to watch film about it.

David Buys: 25:40
So we pivoted and our primary audience for that film has been healthcare workers, those physician, nurses, and this has even been embedded in courses in school nursing school, health professions not at Mississippi State but at other places, and the evaluation data that we're getting back indicates that folks have no idea what our farmers face, be it the farm owners or the farm workers. They are absolutely clueless and in Mississippi, agriculture is our number one industry and yet we're preparing people for professions that would interact with farmers and until now we haven't really had an intentional way of reaching those who have such an impact on that population. Those will have such an impact on on that population. So I, as you know as proud as we are of that work and that film and I would offer it to anybody because it's available on the farm dot life, I would just say the broader lesson here is is to find a way gotta find a way to grab the hearts of those that have the ability to to make a change and and impact farmers and farm workers for the better.

John Diaz: 27:09
yeah, and I agree with what both Dr. Baker and Dr. Buys have said, and I think, in addition to that, we, you know, we've got to have clear communication, you got to be aware of what's going on, and we also have to play to the and minds of those that are influential in this, in this paradigm.

John Diaz: 27:23
But I'll take it even kind of, bring it all full circles.

John Diaz: 27:26
Once we've been able to create this synergy, I think it's important for groups like Extension to really go and meet folks where they're at, and so that's what we're trying to do specifically in the state of Florida.

John Diaz: 27:37
So, for example, we're going out to the farms to provide health screening, vaccination and education. We're going to the churches that they're going to on their one day off and providing health screening, vaccinations, connection to local clinics and all those different

things. And in addition to that, they also have to take part of worker protection standard training to maintain, for example, their pesticide application certification. So we're going to trainings like that, so we're finding places where they're already going to be to help to provide the education and the services that they need amidst the craziness that is their life. So I think that if we're able to bring those three things together, I think it'll help to make some real change and hopefully transform the health access and quality of care paradigm that the farm workers are dealing with currently.

Phillip Stokes: 28:49
So Dr. Diaz you brought up Cooperative Extension and I think that's where we were going to go next because I did want to ask, and Dr. Buys I want to hear your perspective from the state of Mississippi as well. But what is briefly Cooperative Exentions and what is this role in healthcare because I feel like it's a relatively new shift that we've seen, that we're asking extension agents to address certain healthcare needs that you know. Maybe in the past it was more scientific or technical or agricultural focused. So, Dr Baez, do you have any, or actually both? I'm going to open it up to both of you if you want to comment on that.

John Diaz: 29:10
Yeah. So first, cooperative extension is a really the connection of land grant universities to the communities in the state that they serve. So in the state of Florida, we have Florida A&M University and the University of Florida, who have a connection to the 67 counties and tribal reservations that exist in the University of Florida, who have a connection to the 67 counties and tribal reservations that exist in the state of Florida, and their goal is to build relationships with communities and connect them with information and science that's happening at the universities that they represent. So what is the role in medicine and public health? So I think COVID was an amazing case study to show how extension can work not only into communities to provide services but also to provide education.

John Diaz: 30:09
And so we're really trying to build out that model and take advantage of the amazing work and the amazing relationships and connections that our local extension agents have made to bring health professionals to these communities and provide these services and education opportunities that they didn't have in the past. And so we're having really, really great luck in capitalizing on these great extension agents that are doing work with these communities. They're doing work in the space of public health and now we've developed a coalition of partners that are focused on agricultural health and safety and specifically increasing access to quality services which were not there before. So represents a new opportunity. I think we may not have it all humming and buzzing the way that we would want to, but we're learning along the way, and my vision is to have medical professionals more fully integrated into the extension model. So it's not just colleges of ag and life sciences, we also have colleges of medicine, colleges of business, colleges of engineering, helping to transform.

David Buys: 31:14

You know what we're working within today and I would just go, you know, a little bit further back in history and just for folks that don't know, Mississippi, it's certainly the same. We and Alcorn State University both have agents and uh extension service and and across both universities we have agents in every county. The fact we're the only statewide it has still has an eight to five presence every day of the week in every county. State State Department of Health doesn't. The Human Services, child Protective Services none of those have fully operational 8-5, five days a week services in every county. But attention has remained committed to our mission to be fully present all the time in every county of the state.

David Buys: 32:08
Historically I would just say that the land-grant universities building out from the early 1860s to 1914, there was this evolution from being strictly a teaching-focused operation to a commitment to take that teaching to the people, take that education to the people, primarily and initially around agriculture, but also including whole economic, what we used to call whole economics now family and consumer sciences. A lot of states are moving to the concept of family and consumer sciences, transitioning to family and community health, and I think that may be a better way of framing where we are now is that we really are doing family and community health work In most states. I would say that we are really never intending to move to a provision of clinical services. That's not really who we are, but we are connected. We are one of the strongest assets and straight to the attention and the attention breaks the table is a connection, and initially that connection from the university around agriculture, home, economics, to the community.

David Buys: 33:15
But also now, as our universities have become more and more sophisticated and offered more and more services, we're able to kind of serve as a hub and bring in expertise from, as a few said, medicine, engineering and the list goes on to those communities as well. Through this vehicle, through this mechanism and it's an extraordinarily powerful mechanism healthcare reform back in the early part of the Obama era President Obama era that the notion of health extension was written into the bill. Our model is one that others envy and would love to be able to replicate. It's not been fully rolled out. This notion of health extension, separate from cooperative extension, has not been fully successful, and so I think the fact that the healthcare industry envies what we do and we continue to be successful is all the more evidence that we need to be working together and pushing a greater focus on health through extension, through this powerful infrastructure that we have.

Phillip Stokes: 34:25
Yeah, Dr Baker, did you want to add anything about your work in Extension or some of the communication efforts or really anything else?

Phillip Stokes: 34:33
Sure I think I certainly agree with everything Dr. Buys and Dr. Diaz said and I think Extension is uniquely positioned to deliver some of that communication. In a lot of our models

looking at vaccinations of children and looking at vaccination for COVID in general, community-based social marketing was one of the things that really impacted people's attitude toward getting vaccinated, as well as their intention to get vaccinated.

Phillip Stokes: 35:00
Can you share what that is real quick?

Lauri Baker: 35:01
Yes, absolutely I was going to say. Essentially, what extension is is built on that model. People are already embedded within these communities. They're members of the community, they're going to school, they're going to church, their children are interacting with people in these communities. So they already are kind of boots on the ground.

Lauri Baker: 35:21
They're trusted information sources, while they're also plugged into science and trust in science is another thing that we've seen in our models that have been really impactful in people's decision making, and so Extension has that opportunity to be in those communities to influence all the things we've talked about today, to influence the social norms around health issues, people's self-efficacy to make decisions around health issues, particularly in rural communities. The other aspect is when we ask about trusted information sources and compare rural communities to urban communities, trust and extension is much higher in our rural communities. So, as we're thinking about rural health care, in many cases they may not have a local clinic, but if they have a local agent, that person can certainly be a liaison, someone to help them get the right answers, get the right information and continue to have reminders and information about how they can connect more broadly. So I can't really think of a better vehicle than Extension to deliver some of those communication messages around health.

John Diaz: 36:51
They don't have. Extension is viewed as more of a trusted messenger than our medical professional counterparts, and so they see it as a great partnership to help to influence those decision-making paradigms on the ground and hopefully get folks to get vaccinated, you know, start to engage more in preventative health, no-transcript. So again it's been a great, great connection, a great vehicle to get some of the medical science implemented on the ground.

David Buys: 37:32
I would layer in that we've not talked about really research at all. We've talked a lot about evaluation or sort of needs Describe, generally work. That Extension is careful to stay out of the formal research world. We're pretty much about practice and applied effort and at the same time we are a great partner for researchers. We're not here to be their research assistants or to simply be their data gatherers or solely their access to participate for their studies, but there are often synergies where folks with research grants can work with us and we can plus up things for communities through research grants and then the

researchers also get the access they need for data collection. It's a really, really remarkable partnership on that side as well, and lots of science has been developed to inform implications from partnerships that Extension brings to the table. I am very careful to reemphasize what I said, that we are not sitting around twiddling our thumbs waiting for researchers to come, get us to give out their instruments or convene a focus group for them, but where there are synergies, we are ready and willing partners.

Phillip Stokes: 38:57
Dr. Lundy, do you have any other questions or thoughts to kind of wrap up today's conversation?

Lisa Lundy: 39:03
No, I just thank you all three of you. I think that the three of you represent a lot of like. We've discussed solutions and potential for collaboration, and so I really enjoyed hearing from all three of you today and very thankful that you took the time to participate.

Phillip Stokes: 39:40
Yeah, of course we started out talking about the challenges and some of those barriers, but it really is encouraging to hear all of the work that is being done and some of the positive changes that have happened over time. You know not always easily done so right, but it's great to hear about the work you're all doing in those areas as well. I just want to thank you all for joining today sure thanks for having us yep thanks for having us great well, uh, once again.

Phillip Stokes: 40:01
um, this is being video recorded. If you want to check us out on the southeastern coastal center for agricultural health and safety YouTube channel, you can see it there. We'll also stream it wherever you get your podcasts and until next time, be on the lookout for other episodes from Science by the Slice. Thanks so much for listening.

Ricky Telg: 40:24
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