

Climate Change: Impacts on Preparedness and Health

Webinar Transcript

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0:00:01.0 Storee Harris-Stubblefield: Welcome to Prepare Set Go, a podcast of Public Health Prepared. Public Health Prepared is the workforce development branch of the Michigan Center for Infectious Disease Threats and Pandemic Preparedness or MCIDT Initiative, which is housed at and funded by the University of Michigan. We hope this podcast will better equip the public health workforce to handle ongoing and future health crises. Thank you for tuning into our episode. Today we'll be talking all about climate change and its impact on preparedness and health. I'm your host Storee Harris-Stubblefield.

0:00:41.0 SH: In this episode on climate change, we'll be hearing from Cindra James. Cindra has worked in the public health field for 34 plus years, 15 years in environmental health programs, 19 years as an emergency preparedness administrator, and nine months as a health equity coordinator helping the Washtenaw Health Department assemble a health equity council. She is a part-time lecturer on public and community health education. She has worked with the University of Michigan School of Public Health on training and as an advisor for their public health leadership program. For the past two years, she has mentored new public health employees through the new to public Health program. Cindra is the founder and CEO, the Synergy Consultant and training LLC. Cindra holds a bachelor's of science degree in biological science and a master's in public administration. She's a lover of all four legged fur babies and an avid reader. Welcome to the podcast. I'm excited to speak with you today, Cindra.

0:01:42.6 Cindra James: Very happy to be here. Thank you.

0:01:44.4 SH: Thank you. As we get started, could you define climate change for our audience?

0:01:51.8 CJ: Yes. According to the World Bank climate change knowledge portal, climate change is a significant variation of average weather conditions becoming, for example, warmer, wetter or drier over several decades or longer. Is a longer term trend that differentiates climate change from natural weather variability. Before climate change, the term global warming was used and that confused a lot of people because, if you're in Michigan and it's like 10 below with a wind chill, 15 below, you're going, "Oh yeah, the earth is really warming." It just didn't make any sense. But global warming refers to the rising global temperatures due to, mainly to

increasing concentrations of greenhouse gases in the atmosphere. So it's a little different. I think people recognize climate change a little bit more than, or I guess, take on climate change or understand a little bit more than what they think about global warming.

0:02:47.2 SH: I'm glad you brought up that point. With that said, do you think there's a new phrase that's needed to lessen the tension such as weather related disasters or some other phrase to talk about this phenomenon?

0:03:00.7 CJ: No, I think we should leave it at climate change, just because it is exactly what it is. I think if you use the term like weather related, a lot of times people will think, well, only the storm itself or the event itself and not think about anything that happens along with what's affected. So for example, when I did preparedness and I was thinking about doing different kind of natural disasters responses, you're thinking about the actual event. So if a tornado hits it, it's destructive. It takes out houses, and cars and businesses and things like that. Or same thing for hurricane, if you're talking about in other areas. It devastates the area. But there are other pieces to climate change such as the extreme weather events, may hurt elderly and children. There's an increase of spread of certain diseases.

0:03:52.6 CJ: It could be, rising sea water levels. As a matter of fact, off of the coast of Panama, there's an island there that the people who are native to the island are actually packing up and leaving and coming back to the mainland because in several, couple of years the sea level will rise above and the island won't be there anymore. There's also the change to ecosystems. We know whether or not animals and plants will have the same kind of area to either eat or migrate or reproductive. You have, things like natural defense, or security termination. All those things are involved in climate change that people don't normally think about because it's not necessarily associated with an event when it happens. So just leaving it, talking about as a weather trend doesn't really encapsulate everything that happens during climate change or what's affected by climate change.

0:04:47.8 SH: That's a really good point, Cindra. Thank you for clarifying that. Talking a little bit more about your own experience, in working in Washtenaw County, did

you encounter any resistance to the idea of climate change as a force behind health impacts?

0:05:02.8 CJ: We have in the past and I think it still goes on to some degree. I remember years ago we were gonna do a climate change community assessment and we put that in the paper and announced it, our communications director did, and we got all kind of feedback talking about, you're heretics, naysayers. It just naturally happens, but it came down to let's, okay, which way we're gonna get the best response for our survey. It was a hot weather and heat survey. Just trying to figure out if people were okay. If those kind of events happened, do they have resources if something like that happened? Do they know anything about the background? Like what can make you sick, what you should do. So we turned it just into the hot weather and heat survey. It's still going forward. When we talk about climate change, there's still some pushback, but people are a little bit more cordial when they talk about it one-on-one, but you still do see and hear things about climate change being fake or false. But I also know Washtenaw County had a very serious attempt to try to do something about it to have a climate action plan. They've been working on it utilizing for the last few years as well as other communities in Washtenaw county. So I think them kind of having a bubble when working for Washtenaw County, but I know other areas where people aren't as lucky when they start talking about climate change.

0:06:25.2 SH: You mentioned other parts of the state, or in other settings, professionally and personally in these other settings and other parts of the states. Have you had different conversations outside of Washtenaw County related to climate change?

0:06:37.6 CJ: I have. I was working with some emergency preparedness coordinators from different parts of the west side of the state as part of the N2PH program that's out of Wisconsin. But what they wanna do is work with people their first year, first couple of years in their role to make sure they feel acclimated and feel comfortable with public health. And one of the young women I was talking to she was saying that, lower peninsula, but up near Traverse Sea Sheboygan, up further like that, people actually were seeing snow that came in. You get five inches the next day, it's like 45 or 50 and all that melts. And so there are conversations up there how that's affecting the economy because you have ski resorts that people

who work there and who own it heavily rely on for financial means, as well as for people who actually go out and shovel snow or go push snow out of parking lots.

0:07:31.5 CJ: So, it is affecting things like that. And another one of the young ladies was saying, the commissioner was talking about, I wish this would stop happening. I don't know why this is happening, why we're getting this, why it's flushed. She's like, it's called climate change. And he just gave her a side eye and walked away. So, I think there is still some issue with people understanding climate change in other areas of the state.

0:07:57.3 SH: Thank you for pointing that out. And I think, that's important to keep in mind when we have these conversations in different settings and on the audience that we're talking to. Next, let's discuss some of the evidence of climate change we are seeing nationally. What have you seen?

0:08:13.5 CJ: Well, it seems like, I started noticing this last year when I had a little bit more time in the morning to look at some of the morning national shows, like the Today Show, Good Morning America. And it seemed like every day something was going on in the country related to extreme downfalls of rain or extreme drought, or you have wildfires or hurricanes. And I remember, so many years ago you didn't really hear about a lot of hurricane or hurricane damage going up the East Coast, going into New Jersey or New York and even going further up. And now you are seeing that almost every day will be mostly the West Coast having their fires and extreme heat. As a matter of fact, Las Vegas this year is almost two months early for getting their high temperatures of over 101 degrees.

0:09:01.6 CJ: You're starting to see wildfires out there. And so probably sooner or later, you start seeing torrential rain. The Midland of America, like the Heartland and they call it the Midwest, other part of the Midwest, there have been in the month of May, there were twice as many tornadoes that usually happen in a year in that one area of the Midwest. So you're starting to see it more and more frequently and it's starting to get a lot more robust and I think more aggressive. If you want to even say a weather or event like that could be aggressive. But it seems like at some point I've got to think, when you rate a tornado or hurricane it's going to go above and beyond what it is now based on the conditions. Also just starting to see where a couple of years ago, Hurricane Sandy really devastated New York City, downtown

Manhattan. And a lot of times you had people who died because they were hiding from the rain and the weather event and they went to their basement like they always tell you, go to cover, go into the lower area and they ended up drowning because there was no way out.

0:10:09.4 CJ: The water pressure on the door had kept the person in there. And a lot of our natural defense had to go there and secure, get supplies, help clean up things. So we really are seeing more economical issues as well as the devastation. I think it's just going to keep going and get a little worse. And the other thing is I'm starting to see is a lot of insurance companies are starting to take policies away from people. Florida, there's a couple, I think, State Farm for sure and maybe Allstate or another insurance company have withdrew their insurance companies from housing. When something happens and somebody puts in, something for something to have their house. You're starting to see just a lot more companies like they have to keep doing this over and over again. So they're not going to allow their policies to be reinstated, which means it could be a higher market for a free market insurance companies and some people can't afford that. There is a real economic piece that's above and beyond the actual event and what happens down the road, weeks, months and years. So that's another piece that might be one to consider when you're thinking about climate change and how it affects communities.

0:11:26.7 SH: Thank you about bringing up those economic impacts, especially during these times, talking about and thinking about how the economic size of climate change for individuals. Speaking a little bit more locally, what have you seen locally in terms of climate disasters?

0:11:47.9 CJ: Well, Michigan is always seen as pretty much a kind of a safe haven. We see storms go across the country, in the news, meteorologists doing things is going West Coast, it goes into the Dakotas, Minnesota, and it goes down and around us into Illinois, Ohio, and further east. But we still have tornadoes here when a lot of times they happen, they are bad. But we also have severe thunderstorms that have high winds and do a lot of damage. We see a lot of hail. We have people don't think of Michigan as having wildfires, but we do have areas that are, sites you can go online and look at and see where the wildfires are and how they're rated like low, medium, or high. And so while we're not seeing that necessarily all the time, it is happening. And I remember one of my supervisors in

the past saying, "Emergency preparedness in the state of Michigan must be like a piece of cake because you don't have a west thing that's going on, you have down south things going on." But that's not true when something happens. When it happens, everybody on deck to help out and do what you need to do.

0:12:54.6 CJ: And if you don't think it's possible, then you're not really ready to respond. Or I don't feel if you don't think it could happen, you're not ready to respond. So I still think, you know, we get like month of July, especially during the Ann Arbor Art Fair time, that's always a time when it is glistering hot, 90 degree weather, hundreds of humidity, high heat indices. And people are out and about Ann Arbor and people coming into Ann Arbor. And they always are like, do you know what's going to happen? If you go have a drink, a couple of beers or things like that, and walk around all that heat, do you know what that's doing to your body? People pass out. We're starting to see a lot more people, emergency rooms are seeing more people going into emergency rooms like around extreme heat events. There's a high percentage of just people having more respiratory issues like asthma is increased for air pollution reasons and also just for the heaviness of the humidity.

0:13:52.0 CJ: Sometimes people can't breathe off of that. So we're starting to see that a lot more. We're also starting to see locally as well as nationally and internationally more vector borne diseases or events happening. West Nile virus and Zika were never part of Michigan's landscape as far as insects. We always had ticks and could get bitten maybe by mosquitoes and get certain things, but it never was a choice of getting something that usually is dedicated to sub-Saharan areas. And now we're getting warmer and going northern. Those infections or those diseases are coming into our area more often. So we had to be more careful about that.

0:14:36.0 SH: So have you had the experience of responding to some of these climate change health impacts, such as the EEE or Zika outbreaks?

0:14:44.8 CJ: We have. I know the Environmental Health for Washtenaw County Department had actually put out mosquito where they could start looking to see how many mosquitoes are in certain areas and they catch them and then for mosquito control, then they catch them and they try to see if they are affected with

Zika or things like that. But there's been extreme power outages. It's not necessarily always public health role to take the response for something like that, but we also do coordinate with emergency management and other local officials in different jurisdictions to make sure the effect is great. We also work with partners like DTE and people who may bring out bottled water, our National Guard and things like that. So we have had to respond to sort of like that with power outages happening. People don't have the ability to, they may not have air conditioning, they may have fans, but the power's out. Neither one of those work. You may not have operable windows. And if you are more of a community where you need more help, then let's say you go grocery shopping, you spend whatever you spend on grocery shopping, and then the power goes out, you can't keep that. If you're on a certain income, how are you going to get more food that you just paid for? How do you get more water if you can't get to the market and everything's power's out, you don't have the money?

0:16:08.0 CJ: So that's when we need our partners to step up and start assisting. And I think a couple of years ago when we did that, we worked with emergency management and they worked with DTE and they got a lot of bottled water brought out. They have large fans that could be brought to different areas. They started just helping people. And this was in the midst of, COVID was here. It's not where it is now, but it wasn't like it was in the very beginning in 2020. And that's the other thing people got to think about is if infectious diseases rise and you have more climate change, then that's going to be just ground zero for catastrophe. Because if you have to keep people away from each other so many feet or whatever, you try to respond, you can't do both. It's going to be very hard to aid them and also take care of infectious disease. So there's different things you have to do to think about when you're actually talking about responding to an event, depending on what else is going on in the world or in your jurisdiction.

0:17:04.6 SH: Thank you for bringing up those points that made me think about a few things, such as increases in allergy seasons or longer duration of allergy seasons. As an allergy sufferer, I can definitely tell the difference this year versus other years. Also conversations around medication effectiveness with the rise in temperature. Some medications make people more sensitive to heat or the medications are not as effective if they stay warmer for longer periods of time. So things to think about. It also increases in infectious diseases such as the bird flu and

things of that nature happening on top of climate change. And it definitely sounds daunting to think about all these things happening at once.

0:17:44.7 CJ: It is because right now in the economy, we're not in a recession, at least that's what the economic people say, but there is a toll on people and the inflation of everything. And I've been lucky to be able to, if I need to go out and get something, I can do that. But a lot of times people can't go out and just get what they want or can't. There's a food desert, there's food insecurity, so there's not anything really available near them. And there's also the ability to, can you really go in the store and get a bunch of eggs or chicken when the prices are astronomical?

0:18:15.5 CJ: And if you got more poultry farms being affected by the bird flu, or you have ranchers who have cattle and it's being affected, those prices could go skyrocketing if they start to cull those animals, that population of animals. So what are people going to do? The prices could go sky high and how is that going to affect people having a decent meal or anything they can pay for? And it's not getting easier. It really isn't the price that they're going up anyway. So just having less food, less security, less likely to be able to get things, that could affect us locally or it could happen nationally or internationally.

0:19:00.1 CJ: We can't say just because we're not having a problem here in America that something's happening part of the world that we rely on some agricultural or meat product they ship over to us. So if it happens there, it's going to affect us one way or the other. It may not be as immediate as it is in that other area, but it's going to affect us at some degree. So it's something we need to watch out for and pay attention not only to think locally, but also think about globally and how we can affect changes to help lessen these effects that are going to happen and become more rapid if we don't do something.

0:19:34.0 SH: Very true. I, just maybe to think about the potato shortage that they were talking about because of the harvest was affected by harsh weather conditions over the past few months. So already starting to see some of that happening. And also with the idea of eating less meat I switched over to being plant-based and it wasn't the easiest change. So telling people to just stop eating meat isn't always easy. There is a kind of learning curve to changing the way that you eat that drastically. So keeping in mind.

0:20:03.9 CJ: Yeah, especially we started thinking about the umami effect or how rich in certain meats taste. And some people have texture issues with mushrooms who may have the closest feeling to meat sometime. And then if people don't actually know, and it takes you, like you said, it's a learning curve. You have to go online and figure out, okay, what has protein... How much protein do I need each day to keep my body healthy and running effectively?

0:20:26.5 CJ: So there's that learning curve as well as just learning, like, I really wanted that hamburger today, but I can't so it's those kinds of things that I think it's going to take a toll and make people more cautious about things they have to learn. And then some people are just getting vegetarian, because they think it's something that is new age and it's not against the plan we have cows. That's what they're on earth for is to feed us. So it's going to take a huge, not only learning curve, but a framing of the issue to make it more happy for more people to do it and think about it in a different way.

0:21:03.2 SH: Very true. Switching gears just a little bit, just wanting to talk about those working in these spaces, such as emergency preparedness coordinators. Do you have any suggestions or tips for those who are emergency preparedness coordinators for preparing and responding to climate change related events?

0:21:21.7 CJ: Yes, I think every emergency preparedness coordinator, whether it's from the local level or if there's a state version of that person at the federal level, and we've received funding, every health department receives funding from the CDC, and which means we have to have certain plans. So every plan may have to have a communication part, a mass fatality, plans on how you're going to vaccinate people or hand out medication depending on something like COVID or H1N1 or something else. You have to have all these different pieces in there on different events that might happen. So that part is universal among us, but each person has to think about how their jurisdiction is affected differently. Like Washtenaw County is different from Wayne County, different from Allegan County. And when I was talking to some people about looking at things like how you're going to help people who may need assistance right now, 'cause the old adage have supplies for three days and the government will come help you.

0:22:22.4 CJ: That's not even a reality now as much stuff is going on and people don't have sometimes the income levels, the most vulnerable people don't have the income levels to actually have three days worth of whatever it is and maintain their daily lifestyle of eating, paying for rent, medication, anything like that, gas. So I think they need to start thinking about what their jurisdiction may be like and what they need. And I remember talking to a young woman and asking her, she's like, "What is the diversity in your community?" She's like, "We're pretty homologous there's not much diversity."

0:22:52.6 CJ: I said, "You don't have old people, you don't have children, you don't have people who might need certain assistance disabilities, you don't have more women than men, you don't have unemployed, you don't have homeless." And she's like, "I really never thought of it that way." I said, "Yeah, people always think about diversity from a Black-White issue." And yes, there are social and political ramifications or implications from that, that we need to always keep an eye on because it still is happening. But every community has diversity and you just have to be willing to use that word and use it and look to see what is really around you and how you can help that community. If you don't start working to see what's going on before an event, become partners with your community, either neighborhood watch people, organizations, then you can't help them right away when an event happens, which means you're going to have to go back to help them, which is going to cause more human resources funding, more just cash funding, financial funding. So if you think about that in the beginning, during the response, you already had that in mind to assist that community better.

0:24:01.9 SH: Thank you for those tips and suggestions. Thinking more about preparing for these events, we've seen the rise of AI using that in different ways. What is your personal and professional opinion on using AI models for emergency preparedness and response?

0:24:19.9 CJ: I think AI can be a good tool if, I don't know enough about AI, and that might be a lot of people's background, they don't know enough about it, like to use it for this event, 'cause I don't know if like AI just takes all the information out there. It's like, hey, if X situation happens, how do you respond? But what if that's not your community? So I'm not sure if the person's community if I put in for Washtenaw County, all the different things that Washtenaw County may have and how we need

a response from that group, that setting. Is that how it works? I also think that there's going to be a huge learning curve to get people to train them to do that, to use it, and how do you use it? How do you effectively use that to do a response? And I guess my one worry is there's always the ability for now to, security as far as hacking systems. So if that is what you learn to do and you become, you rely on it heavily and it gets hacked, what happens then? Are you losing your edge?

0:25:23.8 CJ: It's sort of like, I used to know everybody's phone number. I didn't need to look at my cell phone, but now that I have my cell phone, I just go in there, put the person's name up or say, please call X, Y, or Z, and their number pops up. I don't remember all those numbers. So if you take away that ability to think about how you're going to actually respond, because AI is doing it for you, there's going to be a lack of response and a lack of preparedness to some degree. So I think it is a good tool, but I don't think it's the only tool.

0:25:52.6 SH: I think that's a really good point. Having reliance on systems that are kept going by electricity or vulnerable to hacking and always having like paper copies of something and also just individuals who know in their minds what needs to happen. So that's a very important point. I will also just wanna state that Public Health Prepared is starting to research the use of AI and we wanna encourage the ethical use of these tools, keeping in mind that these things are built by humans and we want to always think about what type of information we're putting into them and that dictates the information that we get out. So wanted to keep that in mind for those who are listening. Just wanting to pivot a little bit to talk about individuals as it relates to climate change. What do you say to citizens about their role in climate change and what they can do to reduce the impact of climate change?

0:26:49.3 CJ: So before this, we were gonna do this podcast. I did like an informal survey, nothing that would be considered very good if you're looking at surveys or statistical data. But I ask people were they really anxious? Like you hear about all these things going on every day. Are they really anxious about climate change and all this going on in the world? And do you think, would you like to know more that you can do? So one person is like, it's not up to us anymore, it's up to the big corporations and the government 'cause they're the ones who caused everything.

And I don't think you need to tell people what to do anymore because everybody knows what they need to do.

0:27:28.5 CJ: They know all the different things you can do to be helpful to your community or the globe. And I'm thinking in my head, not everybody knows everything about any one thing. I know what I know about certain things, but I'm sure there's so much more I can learn about climate change going forward. It may change different aspects of it and what we need to know what we can grow and do different things. I always think it doesn't hurt to always put information out there and keep reiterating it. But what I think individuals can do is certain things like people use a lot of plastic.

0:28:05.8 CJ: If you go buy like cases of bottled water, not only is you have to recycle that, the plastic industry deceived us. And so now we're understanding that even if you do the one and two numbers on plastic for recycling, that may or may not get anywhere, it will go to the landfill. And so if you have your own individual water container that you can refill on a regular basis. Now, I'm not talking about there's been going on where you need to supply large bottles of water like a power outage or a Flint incident or anything like that. But I'm talking about just in your everyday, normal setting from point A to point B.

0:28:41.5 CJ: If you can have your own personal drinking vessel, that'll be helpful. 'cause right now, going into landfills, there's about... Where's my information here? That there is a lot of plastic going on to landfills and to extract that or to transport it is like almost from 1.2 to 12.5 metric tons is a little bit more than our regular 2000 pounds tons that we use here in America. So you're doing that. And then all that plastic that ends up in the landfill, it will break down very slowly. And then what will get mixed in there is something called leachate, which is like a liquid when things start to break down. And that's from other entities like food waste and clothing and fibers, just general garbage.

0:29:32.1 CJ: There's a breakdown, you get leachate and that starts to put out more of gas into the atmosphere. As well as you're taking up space, and you have to worry about depending on how your landfill was constructed or when it was constructed, if it has any barriers that are broken in the future going forward, that waste and that leachate is gonna go out into the water systems. They're getting

larger and larger 'cause people just throw things away. If you can recycle paper, which is easily recyclable, or glass or tin or metal things like that, they just throw it away. They don't think it has any, I don't care if it goes to the landfill. What's that to me?

0:30:11.8 CJ: I used to inspect landfills and it was like three of us and we had like five or six landfills. And we started going around looking at them, everybody go back to that same landfill. It's like almost 10 to 12 feet higher because of waste. So I think that's, some people need to really think about that. I think people need to think about clothing. Back in 1991, people bought about 40 pieces of clothing a year. And in 2022, they do about 70. And besides just buying more clothing, the main difference is clothing is not made as well as it was in the past. There are cheaper clothing being made. I don't mean price-wise, I mean just the production of it, the fabric. So it's wasteful.

0:30:47.7 CJ: It's a throwaway item that if you get a T-shirt from a certain place, it only lasts maybe for that season and then you toss it away or try to give it to Goodwill or Salvation Army. And they're not able to use everything. They end up having to give a lot of clothing or fibers or textiles that go to landfill or they give it to a commodity broker who sends it off to another country. And a lot of the times that goes to Kenya or Chile and other people don't buy it. So it's just a lot of waste beside the fossil fuels you're using to get that waste from point A to point B. And third, I think people could work on building a garden in the yard. I know that some people might think that they can't do it or they might think I don't have any green space. All I have is a balcony or I have just a small patch of land or my soil isn't good or I can't use my backyard. All those supposed negatives can be turned around. You don't necessarily need a green patch.

0:31:56.1 CJ: If you have a balcony or containers you can get, you can get cheap containers from the secondhand store and things like that. You can get them, go to shops where people exchange things, you can get them. And just put some seeds in there. Seeds are inexpensive compared to you saying, well, I have to go so and so place and get some herbs or the actual plant. You can do that. You can actually take, if you have like a bell pepper, once you cut it off that one little end, with the stem on it, you can put that in some soil and cover it with more soil and water and

you get more bell peppers. If you have bad soil, unless it's contaminated soil, you get an enrichment of doing compost.

0:32:32.6 CJ: That's easy enough taking kitchen waste that hasn't been cooked in oil or any fat and putting that in your garden or doing Vermicompost or we do the kitchen waste with worms. So the things people can do, and if you're somebody who's like, "I don't care about vegetables, I like flowers," do the same thing. You're putting beauty out there, you're using more of your grass that you don't have to cut. So that cuts on fossil fuels and the cost of you buying fuel. It also takes away having no water as much land, like flat land and runoff because it's going through a garden and it's being filtered. And I know some people find weeding very meditative and very happy. I do not, I hate weeds. But I find the action of actually gardening, relaxing it is a focal point for your mind to go to do that.

0:33:22.1 CJ: And you're also getting some exercise in there because you're working muscles you don't normally work, even if you go work out in a gym or in your home. So I think it has a way to decompress, people's anguish and anxiety. So I think if you're helping to stop some of the issues that are going on, it may seem like I'm only doing a little bit, but if you think about all the different people that can do that, if you start thinking globally how many people do different things, you can make a difference. It's not just you, there's other people that are doing that. You can spread the word.

0:33:53.8 CJ: But I think there are things that people can do and they can look up ways they could do more. Instagram, other social media does have some good information on there beside all the strange stuff they have. Pinterest, you can learn a lot about things you can do that affect you and your situation you live in. Stop using plastic bags at the, grocery stores. People go to conferences or they find these bags wherever they're cheaply you can go to. Again, a secondhand store, probably find some bags, take those to the grocery store every week because garbage bags, a lot of time ends up in landfills. Some of it does go to make things like Trek that make chairs and things like that, and people wanna deck, that's good stuff. And that all of that's going to those companies. A lot of it's going to the landfill. So I think being conscious of what you're doing goes a long way to help lessen some of the things that are going on. Decreasing greenhouse gases,

decreasing fossil fuel, not putting a burden, more burden on out there by just being conscious of the actions you take.

0:34:54.9 SH: Thank you for that Cindra. That actually gave me some ideas on things that I could do. Some of these things I've already implemented, like reusable grocery bags and things like that. Thinking about growing my own food in where I live. So, before we wrap, I just wanted to ask if there's anything else you would like to add.

0:35:13.3 CJ: I think if people, the Yale has a climate change program and they had something called the Six Americas. And I think it's important. I thought it was like a weird thing when I started reading about it years ago. And they keep updating and things like that. But there are like six different kind of Americans, people like, who are very frightful and very intense that believe climate change all the way over to people, like very dismissive of it. So it all comes down to how you frame the issue. So you may have somebody who's a rabbit climate change advocator who you may need to slow down and talk to them a little bit about.

0:35:50.3 CJ: Well, instead of just talking at people about what they're doing wrong, maybe talk to them about how they could do some things to be helpful or you could get their smetimes there are conservative religious people who believe God gave us this earth and we should be the ones shepherds for it and make sure it thrives and we take care of the nature and we take care of people and all that. So how you frame it for them versus somebody who just has, "Well, I really don't believe in climate change, I think is bogus." But if I can tell you how to save some money and you're doing these things, whether you believe in climate change or not, but you're still helping and getting more money in your pocket, that's helpful.

0:36:28.6 CJ: So I think learning who your audience is, and that goes for anything you do for climate change or any other business that you're trying to conduct. Know your audience and how you present it to people. And it may be different presentations to different groups, but I think you have to take a look at things and maybe tweak how you present things to people and frame it in such a way that it seems beneficial to them. And I think if you do that and just be kind, kindness goes a long way. And it may have more of an effect on helping people talk together and have less adversity and aggressiveness between each other. So I think that goes a

long way. It's not really stopping greenhouse gases and not really stopping fossil fuels, but it may change minds, which further down the road may change how people actually live their lives.

0:37:19.5 SH: Thank you for that great concluding note. Thank you so much for joining us today to share from your experiences and provided some insight on this topic. To our listeners, we hope that you've learned more about climate change and what you can do to impact it. We encourage you to check out the transcript in the podcast notes. With that, we'll end here for today. Stay safe and stay prepared.