Elise: Hello, and welcome to the Health Disparities podcast. Our weekly exploration of health equity, diversity, and inclusion from Movement is Life in partnership with the National Medical Association. I am Elise Tolbert, your guest host for today. I'm the Deputy Director of Public Engagement at the Climate Action Campaign of DC, where I work with diverse constituencies, such as Black American, faith, environmental justice, and youth-based groups to demand action and federal solutions to the global climate crisis. Saturday, June 5th marks World Environment Day 2021. World Environment Day is the principal vehicle of the United Nations to encourage awareness and action for the protection of the planet's environment. It was first held in 1974, and it has been a platform for raising awareness on environmental issues, such as marine pollution, human overpopulation, global warming, and sustainable consumption.

In fact, you probably remember the major crisis caused by the industrial chemicals depleting the ozone layer. Without the ozone layer, protecting life on earth from the sun's UV radiation, we were seeing significant health, negative effects such as increases in skin cancer. It was the leadership of the United Nations that created a framework for phasing out these chemicals and since then, the ozone layer has recovered. This shows that we can successfully address environmental issues when there is a will, a consciousness and cooperation. Today, our guest will discuss some of the pressing environmental issues and injustices that we urgently

need to address because study after study, after study, after study points to the toll that pollution and climate change takes particularly on communities of color. So, now, I would like to welcome our guest, Dr. Cheryl Holder, joining us from Miami today. Dr. Holder has a personal mission to inspire clinicians to act on climate change. When she's not persuading audiences with her highly recommended, TED Talk, climate change and poverty. Dr. Holder is interim Associate Dean for Diversity Equity and Inclusivity and Community Initiatives, and Associate professor at the Herbert Wertheim College of Medicine, Florida International University. Welcome Dr. Holder.

Dr. Holder: Good afternoon and thank you for inviting me to speak with this wonderful podcast on this special day, World Environmental Day. And it's so important that we're here and having this conversation. Thank you.

Elise: And I appreciate you for being here and believe that we'll have a really deep and meaningful conversation about the environment, environmental justice and how that connects to health. So, I want to kick off the conversation by just defining what the environment is and loosely, how the interconnectedness of the environment and our experiences with the environment impact our health.

Dr. Holder: When you think of the environment, you know, everybody, it's where you live, it's where you work, it is where you play. It's where you share each other's experiences. You go outside, you're in an environment, in your home there's an environment. In every aspect of what we do worldwide, we create our environment. And that's what defines how we stay well, and all the studies show that it's your environment, all your economic conditions within your environment, your built environment. What's going on in the world, how much pressures you have in living in that environment. That drives your illness much more in your well-being much more than your genetics. So, in celebrating and recognizing the environment, we recognize that this is how we define humanity, and how we create the environment for us to grow and thrive.

Elise: Right. It's so important to just understand that everything or everywhere that we are is our environment. And often among environmentalist, we have this separation between climate change and the environment. I think many may not understand how climate change relates to the environment, how these two are interconnected?

Dr. Holder: I'll give a quick, Climate Change 101 that I often do, because I'm not sure how much your audience and everyone's new to the climate, how we talk about climate. I'm an internist and you guys know about diabetes, and I can check your blood sugar if you have diabetes, I can check your blood

sugar that one day and I could see it could be high, it could be low, it could be normal. But to really tell me how you are doing with diabetes, I check another number that takes over time. And that number will tell me that over the last three months, this is really how you've been. So, that's where weather is and climate. So, the weather is yes, sometimes it's hot outside in the summer, sometimes it's cold outside in the winter and that's the weather and that can vary, but the overall trending over the last few years, and we know over the last 20 years, we have had significant warming. And where did that warming come from? We fully know that when you put these particles and we can't see them, they're invisible particles, really, really tiny things that we can't see, but we know when we burn our fossil fuels and when the cows burp and when we use multiple things that we make from fossil fuels and plastic, and we use our cars and we put out exhausts, these things stay in our atmosphere. Instead of causing to go out in the atmosphere and just stay out there, they get the sun that comes down and then they deflect back some of the sun rays back onto our planet. And it is that deflection, so, think of our planet sort of now snuggled up in a nice little blanket, but that blanket is really the greenhouse gases that's creating that blanket and that blanket is warming our planet. And with that warming, it’s what's causing the climate, as the winds change and the Arctic melts and the different changes that happen around our environment, then we have the climate change. So, it is changing our planetary environment that then leads to some changes in our immediate

areas, where we go out and where we breathe and what happens to us. And then the pollution that's in there that all comes together to impact our health. So, it all linked together in what we do in the air and how that then warms the planet, which then sets off a series of events that then puts our planet at risk and put us at risk. The direct effects from the actual pollution on our bodies and in our environment and anybody who's been at a fire, and you saw those wildfires that happened in California, where all the smog, those are bigger particles and that filled our atmosphere, and, you know, that caused the problems in the lungs. Well, the smaller particles are also damaging us and that can trigger many of our asthma. It can trigger our worsening of our breathing over time. So, we have those direct effect from the pollution. Then as the climate warms, it causes heat. May 28th is Heat Day and that day we hope to bring the awareness to say that heat is the number one killer of environmental damage to our society. So, heat kills, just the direct impact of heat. Heat causes our skin to get more rashes. Heat causes us to have various illnesses heat strokes. Heat exhaustion. Heat sends up our blood pressure. Heat makes us not sleep well at night. Heat makes us get angrier. So, many impacts that we could just endless, just the direct effect and the indirect effect. And then, our mental health issues. I mean, there are just so many more things that's happening as our climate warms and all the changes happen. And like you said, black and brown people worldwide are feeling the brunt of it, right now. This is not 20 years from now. It's not 50 years from now. Right now,

we have people who are dying because of the pollution, dying because the climate has changed, dying because our crops are dying, dying because the water has dried up across the world and dying because of the infections that come as all these insects are moving all over our planet and infecting us. So, there's a lot of dying that's happening now and it is primarily among poor black and brown people.

Elise: That's a really helpful description to understand how the climate is changing, why the climate is changing and what the effects are, the impacts are of living in a changing climate. And so, it sounds like because the world is warming at a rate at which it has not warmed before that that is changing all of the way that life operates on earth and the chemicals and ecologically and it's impacting human health and so much more. I want to touch a little bit more on the last point that you made. You said that the climate crisis is disproportionally impacting communities of color and disproportionately impacting low wealth communities. Could you speak more specifically to the ways in which the climate crisis and climate change are impacting black communities, communities of color, low wealth communities differently than white communities and higher wealth communities?

Dr. Holder: You know, we would think that this sort of just happened overnight and it's just by chance, these things happen, and we just happened to be living in

the wrong places. People would think, “Oh, poor black folks. Why did they choose to live there?” But when you look at the history, I started in the environmental justice side of this whole issue before I went on to climate change, because I would often look at the damage that was happening because black people on a whole, in the US, we live closest to all the things that degrade our environment. We live close to the highways. We live closer to polluting plants. We live closer to toxic dumps. We live closer, if you look along the Mississippi on Cancer Alley, much of that industry was developed in poor communities. Now, that wasn't by chance. And so, when the environmental justice screamed that our people, the poor people along these areas are dying from cancers, they're dying from asthma, they're having too much lung cancer, blood cancers, just so many illnesses from the pollution that the push was to clean up the pollution and stop and not really stopping the pollution, but there was a real push to clean it up. And over time, as the climate warm, then we realized that the black folks have been screaming something, not so much that it was just their health, but there was a deeper message that was happening that this damage that we're feeling was harming all of us, and that harm was in that all that pollution and the fossil fuel was warming our planet. So, instead of us fighting about not in my backyard, we should have been fighting about not at all. So, that's when I became more involved in the climate change and warming. And then, like I said, we're not sick because genetically black folks and brown folks are different. The genetic variations of people

that we call black and white is minuscule, and it's not significant, but the environment we end up living in is a direct result of the policies that have been imparted on people. And if you look at policies again with the social determinants, it is where you live, where you work, where you play, your access to money and power, which is determined by the policies under which you're governed. People in power, the dominant group created a system that devalued people and we're talking, going back to slavery, and in that devaluation of people, they created a system to maintain the devaluation, which meant that when you're devalued, you are assigned places to live. And if you come up, I'm in Miami and in Jim Crow law, because it's a city that was developed under Jim Crow, black folks were subjugated to live by the railroad tracks or to live by dumps and across the South and in the North and everywhere that's where black folks were forced to live. Every policy that came between Jim Crow in the 1800s, right through to the 21st century, we continued to see policies that caused redlining that gives less access to money to be able to move and less access to education, so you can get better jobs, so you can put yourself in a healthier environment. So, what we see in environmental damage and degradation is environmental injustice, which were based on policies that forced black people to be in these locations. And now, we're paying the huge price, if you look at the death rates, the life expectancy of the black and the poor population, it is much shorter than whites.

If you look at what happened with coronavirus, anyone who lived in more polluted environment, because the coronavirus will hop onto the pollution, and you get a higher dose of the virus when you inhale. So, of course, we saw higher death rates of black and brown people in polluted environment. And that was already proven back in 2020. So, policies that have driven the US to discriminate against black and brown people had left us as we call in the medical world, we use weathered. So, we are left with a population that is weathered, and this population has been weathered by the policies and the injustices that has created environments that has caused their health to be worse than others and caused this decline. When you even think, this is a movement podcast about movement. And when you think of something as simple as osteoarthritis and obesity and other things that we relate to keeping people movement and getting physical activity, you may want to bring it down to, oh, that person just needs to go out and exercise, or that person needs to stop eating. But when you look at the deeper issue, there are so many underlying policies, and environmental things that stop that person from moving. And you look at, if you did not have access to education, you end up in neighborhoods like in South Florida, we're always fighting for neighborhoods to put sidewalks in. They will develop a community that's rich and put sidewalks in. In the poor community, there are no sidewalks. So, when I send my patients out to walk, they have to walk in the streets. That's not safe because if you look at pedestrian injuries and pedestrian deaths in South

Florida, so they can't even go out and walk. So, when we're moving towards movement, it has to be deeper than just saying, oh, let's go exercise. Let's go do Zumba. You have to look at again, all the social determinants, are there sidewalks, are there even shaded areas? Because down here it is hot, it is too hot to just go outside and exercise. And then our kids, especially children who can't manage heat as well, physiologically, you send them out to exercise. It is too hot for them and they're going to get dehydrated and sick, they will come inside. So, just the concept of moving is much more complicated. And so, all these groups that are working on movement have got to join the climate fight because you cannot move if your environment works against you to be able to stay well. So, when my patients come in with the obesity, I go through, how much do you work? Where do you work? I don't ask them about how much food they're eating, because they are usually not overeating, but the environment in which they exist, where they live and work, works against them to be able to stay well.

So, that's the interconnection. As you guys say, intersectionality, which is a 21st century word that I've learned since in my time we didn't have intersectionality, but I love it. So, it's the intersectionality that climate does, and it’s the underlying pinning of everything that if your environment and your climate cannot support you, you're not going to be able to move. You're going to end up with diabetes, obesity, osteoarthritis, and all the

complications. And so, what we need to fight, is to fight for that environment and fight for the climate, so my patients can go out there and walk and it's not too hot and it's not polluted, and they can get better jobs and get better education. They can sleep at night, so when they wake up in the morning, they're not so tired and they can keep on going. It's not that complicated, it's just facts and it's for us to let go of our biases and let go of trying to blame the individual and look at the systems under which we live and look at those policies and make those changes.

Elise: And you touched on something very deep and very meaningful and important. And that is policies and the framework and the setup and how the health conditions we see, the climate, the environment are all a manifestation of the policies that are created by people. Intuitively, one would think that this type of setup is illegal that it is illegal to pollute in communities and to overburden people with pollution and poor-quality environments. Is this type of pollution illegal in some way? And is there some type of legal framework that exists to protect people?

Dr. Holder: You know, legality is an interesting word because we have the EPA and the different folks who determine what level of pollution is safe. And if the energy companies and the other people can come up with the data to show that it's not happening, then it remains legal. In Palm Beach County, they burn sugar and they burn sugar before harvesting to make it a lot

easier. It is one of the highest producers in that sugar burning of pollution particle 2.5 in South Florida. Yet when they do the monitoring, it shows that they're at the legal limit. So, it is legal, and it continues to be legal to burn. So, the push, as we see it, and I tell folks legal is a societal thing because remember slavery was legal. It was the most amoral, unethical thing to have ever done to humans, and that was legal. So, we have to move beyond legal and understand that this is harming all of us. So, when we talk about pollution and we talk about what's happening to black and brown people, for me, it is for us to say, we've been the canary in the coal mine. One person said maybe I have been put out to slaughter. But for whatever way you want to characterize it, the message is clear that whether it's legal or not, it is warming our planet. And if we don't within the next 10 years, stop the temperature rise and keep it at 1.5 degrees centigrade, we are going to have a cascade of events that is going to be even more disastrous for our planet. And yes, poor people will die more just like we saw with coronavirus.

Not all of us are going to be as affected as others because again, like our data clearly shows the richer you are, the wealthy you are, the longer you live and no accident. So yes, probably the richer countries will make it through, okay, better because they'll be able to build domed air conditioning places, so they can go out and exercise and have fun in their domed air conditioned, exercise, places, whatever you want to look at it.

But then, there will be places on our planet that will be suffering from drought and disaster. Even where I am in South Florida, sea level rise, I'm already seeing changes. I told you that black folks were sent to live by the railroad tracks. So, they were getting the pollution from the train and in that bad neighborhood. But it turned out that engineers knew that railroads are high ground and the best ground to put down railroad tracks. So now, 21st century, that less desirable land in South Florida is now desired. So, what we're seeing is climate refugees. They're internal climate refugees that are experiencing climate migration because they're being displaced from the high ground in South Florida because the rents have risen and they're being moved down to the low ground now because that's all they can afford. The hurricanes, they're not getting more, but they're getting more intense, and they're starting earlier because the oceans are warmer. When that intense storm comes through the population that for many, many years never experienced flooding because they lived on high ground by the railroad tracks are now moved into the low ground, which puts a larger group at risk for flooding and dying that never happened before. So, we're seeing that in the US, and it's going to happen worldwide. So, yes, the richer will find a way, but if we don't there are a lot of us will suffer. And so, the poor people who have been experiencing climate change now have been telling us, learn from us. If we find solutions that help us now, those solutions will save you, too and use that to really mobilize your energy and act urgently because we only have 10 years.

Elise: That's powerful and it's a powerful example. There are so many examples, very similar to the example that you gave in Miami about climate migration and gentrification and the ways in which gentrification intersects with climate and environmental justice. I think that what you've pointed out is a very clear problem. A problem of the ways in which the environment in particular policies and decisions are directly, negatively impacting poor people, people of color, and there's a need for taking action on this. I know that there are a lot of people who are listening today, who wonder, what can we do about this? And what kind of framework has there been historically for taking mass action on an issue of this sort? Could you speak to some type of framework that's been used before and or what clinicians or the general public can do about taking action on climate change and environmental justice?

Dr. Holder: Well, you know, the framework exist repeatedly in the history. If you think about ending World War II, that was the entire world coming together to defeat Nazi Germany. So, it's like you said earlier, political will. When I think of infections, I think of HIV, and when you look at HIV, which started 1980s, we found out the virus in the '80s and now 40 years later, by 30 years, we found a way to make it that you did not have to get infected with this virus, where if we could treat you, we got no transmission because your viral load stay undetectable. Now, how did that happen? Early on, we

saw the activists. I have as they say, shout out to the activists, and them all in the HIV world, because had it not been people who spoke up and said, people are dying, we must act now, and one of the groups were Act Up. With the acting up and the different non-governmental organizations, and everyone speaking out about it, we were able to get the governments to come together. We got the researchers to come together. We got the governments and private foundations and everyone saying let's work together to be able to find out what's causing this infection, and then how do we treat it? A lot of what we saw with the vaccine, the corona vaccine came from policies that went in during HIV. The Emergency Use Authorization Act that came in because the AIDS activists and the physicians were screaming and we were saying, you cannot wait 10, 15 years to test a drug when I have patients who are dying now. If the drug has some promise that we have done enough data, move that research rapidly, let's get it out to the people. That's what brought HIV under control and save so many people. I mean, I still remember my patients when the first drug came out and we were like setting your alarm, you got to get up, you got to take it and don't miss a dose because we can save you. And we saw people come back to life by following these drugs and all the new regiments, but it was political will, political will with dollars. You can't have political will without the money. The money has got to flow with the political will and the community has to speak together. So, we also insisted that the world should get HIV medicines, not just the rich

countries. And so, the big push to get HIV medications across the world, they were saying that, oh, poor people won't be able to come in and take medicines and poor countries wouldn't be able to make sure their viral loads are undetectable. Yet, we were able to prove that when you brought the education, you brought trusted messengers, you brought people out, we got better undetectable levels in the poorest countries in Sub-Saharan Africa. The women got treated, the babies got treated, and we were able to bring this infection under control. So, it can be done but it has to be that we have the political will, we're able to face the facts and this is what happened with HIV. We're able to face the facts of how this was transmitted and what we had to do. With climate change, it took us forever to accept that it even happened. And now that it's happening, to get folks to accept the urgency, so we can save lives that's our challenge, but we have lots of examples. You gave an example with the ozone, it's all political will dollars and the community coming together to say, we are all affected, and we all want each of us to survive this. Coronavirus is an example of what doesn't work. And so that's sort of a little scary in that we didn't get the political will to really harness those resources like we should., We had the science, but you can't do the science without the political will. You can't do the science without the trusted messengers. You can't do the science without bringing all together where we feel we all benefit. And coronavirus shows us that just science alone is not going to be the answer. And with climate change, we know already the science has

already been there for many, many years, but we weren't able to get all the other pieces together. I want clinicians to get involved because we see these sick people, we see them early and we can bring that message. We can alert them, we can prepare them for what's coming and we can push the community to start speaking up and acting to save all of us. So, that's what I see that can be done. We have lots of precedents that it can be done. We just have to know, really accept urgency and find a strategy that will get us there.

Elise: It's so powerful to know that there is a framework. Also, kind of sad to see that that framework is not working in our current context in terms of galvanizing the political will to follow the science, to work with the trusted messengers, but also inspiring to know that there is potential and there's energy. There is a movement to take action, to produce a better society, a better world. So Dr. Holder, I want to thank you so much for providing your expertise here on this podcast today. I think we have all learned so much from you.

Dr. Holder: Thank you, Elise, and thank you, Movement is Life, and, of course, the National Medical Association for making this possible.

Elise: And I want to thank everyone for listening to this episode of the Health Disparities Podcast. We hope you will subscribe and follow the series. In

the near future, we will explore solutions and pathways to environmental justice. Until then be safe, be well and goodbye from me and the Movement is Life.

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