

Dr. Preeti Jaggi on Children's Health, Clean Air, and the Power of Collective Action

Summary

What happens when doctors bring their expertise to climate advocacy? In this conversation, Dr. Preeti Jaggi, a pediatric infectious disease specialist at Children's Healthcare of Atlanta and a leader with Georgia Clinicians for Climate Action, joins host Eriqah Vincent to talk about the connections between climate change, children's health, and equity, and about her team's Drawdown Georgia Climate Solutions & Equity Grant project to accelerate electric school bus adoption across Georgia.

Key Takeaways

- Healthcare itself contributes significantly to greenhouse gas emissions, accounting for about 8.5 percent of U.S. emissions, which pushed Dr. Jaggi to pursue climate solutions both inside and outside the hospital.
- Climate change affects Georgians' health directly and indirectly, from heat stroke and stronger storms to waterborne illness, mosquito-borne disease, and disruptions to medical supply chains, as seen when Hurricane Helene damaged a major saline plant in North Carolina.
- Communities that were historically redlined often have less green infrastructure and tree cover, worsening urban heat islands and air pollution, and lower-income families are often least able to absorb the financial shocks of extreme weather.
- Georgia Clinicians for Climate Action partnered with Mothers and Others for Clean Air and the Georgia State Medical Association to pair trusted healthcare voices with hands-on logistical support, helping school districts understand both the "why" and the "how" of switching to electric school buses.
- Electric school buses cut children's exposure to diesel exhaust linked to asthma, impaired cognition, and premature birth, disproportionately benefiting Black children in Georgia, who already face higher rates of these health impacts.

Transcript Notice: This transcript was generated automatically and may contain transcription errors. It has been lightly edited for clarity. Please refer to the video for the most accurate record.

Eriqah Vincent: Hello, everyone, hello, hello, and welcome back to our series, the Drawdown Georgia Climate Interview Series. My name is Eriqah Vincent once again, and I'm really, really glad to be speaking today with Dr. Preeti Jaggi, who is on the steering committee with Georgia Clinicians for Climate Action.

Thank you so much, Dr. Jaggi, for being with us today, I really appreciate it, I'm really excited to talk to you. Please introduce yourself for our audience and tell us about the work you do.

Preeti Jaggi: Sure, I'm Dr. Preeti Jaggi, and I'm a pediatric infectious disease doctor. I did my pediatrics residency and then an infectious disease fellowship, and I've been increasingly concerned about how climate change affects kids' health. So I've gotten into a lot of advocacy work to try to decrease greenhouse gas emissions and improve the lives of children, who are going to be most impacted by climate change because they'll be living more years in a changed climate.

I work with Georgia Clinicians for Climate Action, and for those of you who don't know, there are many state groups of clinicians working to decrease greenhouse gas emissions. There's the Medical Consortium for Climate and Health, which is the national organization, and Georgia is one of the chapters of that national organization.

Eriqah Vincent: Oh, okay, that's really good to know, thank you so much, and thank you for the fantastic work you're doing, that's super important. So take us back to when you yourself began to emphasize climate issues in your career and in medicine — not something people typically think of immediately when it comes to doctors.

Preeti Jaggi: I was always very drawn to climate and health, actually, ever since high school. I remember watching an Earth Day special on TV in the 1990s, when I was in high school, and I was really concerned about how climate affects health. In the back of my mind, though, I didn't really know the verbiage around that at that point, because I hadn't been to medical school yet. I remember making my parents recycle and things like that, getting into taking care of our climate and our environment at that time.

Then, when I was in medical school, residency, and then had children, I was pretty busy. I worked a little bit — I remember taking my kids to a community garden, and we would volunteer there — but I didn't have as much time. As my kids got older — they're now in college — I was able to get back into this space. I did the Climate Reality Project training with Al Gore's group in 2017, and then I started doing a lot of work in the community, in the city of Decatur, working with colleagues to try to establish clean energy goals in my city. I also took some climate and health classes that colleagues of mine at Emory teach, and really got to learn more about air pollution and how climate affects health. In healthcare, we also contribute a lot to greenhouse gas emissions in the United States — we account for about 8.5 percent of the greenhouse gas emissions — so I started getting involved in that area too.

Some of it's community work, and some of it is in the hospital itself. More recently, I've been working with Mothers and Others for Clean Air, which is a wonderful organization that works on air pollution, and we've been working on electrifying school buses — how do we do that? That's been our more recent project. I think for me it's been a little incremental — I started here and moved along with it as I got older and had a bit more time. It's been really wonderful for me. I find a lot of satisfaction in this work, because I really think it's doing something that's needed, and that not enough people are doing.

Eriqah Vincent: Absolutely, and thank you so much for that information — I didn't know the medical field was contributing to greenhouse gas emissions. As a mother of very small children, I'm on a bit of a different angle of motherhood — I have a four-month-old and a four-year-old, and my four-year-old has intermittent asthma, so when she gets sick, she gets really sick. I'm always thinking about air quality — she had a cold just last week. I'm always thinking about air quality and how we're contributing to it, and thinking about where we live — we live not too far from the interstate, and how that plays into other issues. Hearing about doctors prioritizing

clean air is new to me. I really admire you for honing in on that as a way into the climate field, because we also talk a lot on this show about the different avenues people have taken into this work, and as a doctor, seeing that as part of the work is really inspiring.

Preeti Jaggi: I think more doctors are getting involved in this now, especially as we see how climate affects health, how people get displaced from their homes.

Eriqah Vincent: Mm-hmm.

Preeti Jaggi: I think around the country you'll see more and more groups gathering steam to do this work. Maybe five or ten years ago that wasn't the case, but I think it's really maturing now in many different states around the country.

Eriqah Vincent: What are some of the most significant ways climate change is impacting public health that you see in Georgia?

Preeti Jaggi: In Georgia, one thing we definitely see is heat — our summers have more hot days, and that can lead to heat stroke, for instance. We also see more extreme storms. People have gone back to Hurricane Helene and looked at climate change's contribution to it, and really determined that it was made stronger and more powerful because of climate change. After those storms, we see indirect effects too. We know our waterways can get overwhelmed with very extreme precipitation, which leads to more diarrheal illness. We know that vectors — like mosquitoes — breed in standing water, so that's another example. And we know people are displaced from their homes. After Hurricane Helene, one-month-old twin babies died in Washington County, Georgia, when a tree toppled onto their mobile home during that extreme weather.

We also have downstream effects that I don't think people really recognize. The Baxter plant, which provides quite a bit of saline for the United States, in North Carolina, was decimated, and we had to really ration our saline for a period of time because most of it was made at that plant. Prior to this, in 2017, Hurricane Maria hit Puerto Rico, and we also had saline and drug shortages after that. So there are downstream effects people don't realize, and then people also can't get to the medical visits they need.

We think about climate change as having both direct and indirect effects. Some of the indirect effects are things I see — infectious diseases, waterborne illnesses from bacteria, and displacement from your home as well. There are lots of ways it affects us. Sometimes it affects us so profoundly, in so many different ways, that it's hard to label.

Eriqah Vincent: Right, right — I like how you put that, with all the direct and indirect ways along the chain, sometimes the supply chain, that we're dealing with climate change in the state, and really, obviously, around the world. We know some Georgia communities are impacted more than others, for some obvious reasons and maybe some non-obvious ones. How do public health and climate intersect with the issue of equity specifically?

Preeti Jaggi: Oh, I think they intersect profoundly. We know, for instance, with air pollution, that many areas that were previously redlined don't have as much green infrastructure or trees, so air pollution can be worse there, and urban heat islands can be worse there too. When we think about equity, we know that the people who have the least to deal with disruptions from climate change are going to be more profoundly affected — they won't be able to deal with the effects as easily. If you think about a storm coming and people fleeing, you have to have gas money for

that. So there's a profound intersection between extreme weather and inequity, but also, areas that have been previously disadvantaged have less green infrastructure, which worsens urban heat islands and air pollution.

Eriqah Vincent: Absolutely.

Preeti Jaggi: Living near a major roadway is also a risk factor for more severe asthma. So where you live is often determined by what was decided in prior generations about where you could live. I think they really do profoundly intersect.

Eriqah Vincent: I'm glad to hear you say that. I live on the east side of metro Atlanta as well, a little further east than you. Thinking back to my daughter — when the BioLab plant exploded in Conyers, they didn't take the kids outside at her daycare, because they had multiple children there with asthma, so all kinds of issues came up. And, you know, living near the interstate, to your point, but also I think it's really important what you said about inequity from a redlining perspective —

Preeti Jaggi: Mm-hmm.

Eriqah Vincent: — and racial inequities, and then when racial inequities meet climate injustice meet income inequities — when people talk about a Hurricane Katrina or other hurricanes, where are we going to evacuate to? There is no evacuation, there's no way to do that for some people. So I think that's really profound, what you just mentioned about the ways we're thinking about climate change, and there's another chain of indirect effects — it's not just that a tree fell on our house, we don't have gas, the children have asthma —

Preeti Jaggi: Multiple ways, right? And whether you're insured, whether you can afford robust home insurance — how you deal with these problems is going to be profoundly affected by your means, unfortunately.

Eriqah Vincent: Right.

Preeti Jaggi: It's something — and also, extreme heat makes your power bill go up too, so that's another area where some people can afford it and some people cannot. I just think they really do profoundly intersect with each other, and trying to help those with fewer means is a really good idea.

Eriqah Vincent: Right, of course. So Georgia Clinicians for Climate Action is wrapping up a project funded by the Drawdown Georgia Climate Solutions and Equity Grant. I'm on the advisory committee for that grant, and I remember seeing the proposal and thinking very specifically, this is super important work — this is innovative work that people aren't necessarily thinking about, doctors doing nonprofit-funded work on climate. So I'm so glad you all were awarded it and able to do that project. I'd love for you to talk about that work, because I think it's really important, innovative, and significant for how we're looking at climate work — not just from regular nonprofits, but from scientists, like doctors.

Preeti Jaggi: Yeah, it was great, we really appreciate the funding. What we really thought about was how to elevate the idea that climate is a health issue. There's this idea of One Health, which was coined some time ago — the idea that the health of humans is integrally tied to the health of animals and our shared ecosystem — the planet, animals, and humans, we're all interconnected. We think about that with antibiotic resistance too — I'm an infectious disease doctor, and the

antibiotics used in livestock can affect resistance, which affects humans. We've been thinking about that a lot, and for this project we were thinking about air pollution, and how it has a profound effect on children.

We partnered with an organization called Mothers and Others for Clean Air, and the Georgia State Medical Association, which is an association of Black physicians with a special interest in equity. We all got together and thought — there's funding for schools to get money from the Inflation Reduction Act for electric school buses, but there's a workload involved. You have to apply for a grant, train your drivers, get the hookup for your bus to be plugged in, learn how to use it — it's a newer process, and that can be uncomfortable for people. So we thought we could partner healthcare providers, who would speak with the school boards themselves about the importance of electrification. Why is it so important? Because we know it affects children's cognition — the air coming up from the bottom of the bus affects their cognition and respiratory function. And you also think about the bus driver, who has a more sedentary job sitting in that bus, because air pollution is also associated with heart attacks and stroke.

We'd have a healthcare provider go first, make contact with the school in some fashion — either at a school board meeting or speaking to a transportation director — and really tell them the why. Why is this important, why is this a good idea? We're also decreasing air pollution for the rest of the community, so there are community benefits too. After that, our colleagues at Mothers and Others for Clean Air would come in and talk more about feasibility — how do you get the grant, how do you help them write the grant, how do you help them figure out the connections? I know one of my colleagues, Tanya Coventry-Strader, was going to talk to Georgia Power about how to get the special hookups needed to charge those buses. So we did the "why" with the healthcare provider, and then followed it with logistical help to get schools the electric school buses.

We also do a lot of community advocacy — we talk to people at different community fairs and things like that, and it's been really fun. A few weeks ago we went to an event and had an electric school bus there, and the driver was telling us how quiet it was, how she could hear the kids talk, how much she enjoyed driving it. We've also done some troubleshooting — there have been some issues with these newer buses, maintenance and things like that, that we've helped with too. It's really made me think you need a village to help with these problems — you can't have somebody with only one area of expertise. It would've been pretty useless just to have the doctor talk, because we couldn't follow up with the logistical piece. So we talk about the why, and then somebody else comes and helps with facilitating getting these buses — it takes a lot of people working together. I think that's a theme for me in any kind of sustainability work — you need to be cross-disciplinary and really work together to make progress. You cannot think in silos. If you think in silos, you'll just find obstacles and you'll stop.

Working together has been really wonderful, and I've met a lot of great physicians from the Georgia State Medical Association from around the state, not just metro Atlanta — that's been so wonderful. And the other thing about this project is we're also engaging with what's going on at the federal level, like EPA pollution standards, and we can draw on colleagues who've helped us with one project to help with another. So it's creating a bit of a network of clinicians who can do advocacy work.

Eriqah Vincent: As somebody who's seen the wonder and the power of collaboratives, I couldn't agree with you more about who has the expertise and how we're using it at different levels. Thank you for mapping that out, and the troubleshooting piece too — we wouldn't even imagine

that you can't just plug a bus into any old outlet, or think about where the hookups need to go, and then there's the funding aspect and so many others. Can I ask you, what's the reach that you all have had — is it Decatur, the county, the metro? How many schools, off the top of your head, or how many clinicians have been able to speak to their school board — whatever metrics you're using for success?

Preeti Jaggi: This is a statewide effort. I've spoken more in DeKalb County because that's where I live. Our initial idea was to go to areas that had either poor air quality or where children were spending more time on buses, because we really wanted to take a Justice40 kind of approach initially. I'll have to say, one of the things I learned is that these things are so complicated — some areas of the state don't have any air quality monitoring, so we don't have the data. Some areas have ratings from the American Lung Association and some don't. In some rural areas, kids ride much longer distances, so using an electric bus is harder there than in another area, and some districts keep the bus at the driver's home, so where would you even charge it? Usually you're thinking about a central depot. We also learned that some systems tend to follow another, larger school system in terms of their operations.

Ideally we'd say, we want to go to this area for X, Y, and Z reasons — very clear-cut — but we also had to think through what's feasible. That gave me a lesson in starting with what you want to do, but modifying it based on what's possible, because you can't always go in with a cut-and-dried plan, because it doesn't always work that way. So listening to different counties has been really great. APS — Atlanta Public Schools — has been wonderful, showing off their buses in other areas of the state too. We basically have three tiers: some counties had already applied for buses on their own; some we helped apply for buses; and with some, there's been a bit of uncertainty about whether there's funding this year — through the end of the year we do believe it's open, so we're going back to that now.

The other thing we did — and I'll credit Mothers and Others for Clean Air for this — they actually got filters for some of the buses that couldn't go electric, because it's more expensive and they didn't have the funding. We acquired filters that decrease air pollution from the exhaust pipe, which also benefits the health of children and bus drivers. So we're just trying to do as much as we can. One of the partners we found were school nurses — when we went to DeKalb one time, it was School Nurses Week, and some nurses were there. That was wonderful, because they take care of kids with asthma, and they were really happy to talk with us about that. We're going to continue working as long as we can — speaking with providers. One of our providers, a pediatrician, just spoke in Gwinnett, and the district responded and is now working on getting buses in Gwinnett County. That was just a direct connection from one pediatrician.

Eriqah Vincent: Wow, that's really, really cool. I feel like the theme of our conversation today is all the ways it's not just "my work is doing the thing," but how it hits on every level — you're going to talk to folks about getting buses, and then you realize the bus is parked at the driver's house, so where are we going to plug it up? Or there's water on the road, and that's an infrastructure issue, or this or that — more and more ways collaboratives, conversations, and people with multiple areas of expertise matter to the larger work. That's really the theme of our conversation.

Preeti Jaggi: Yeah, and creativity — a lot of creative thinking from multiple different people. I think that's been a really good lesson, and you have to listen — something you may think is very easy may or may not be, but you have to listen to why it's not easy, and then see if you can help get around that problem.

Eriqah Vincent: Absolutely — like you said with the air filters, "We can't do this, but we can do this other thing," which I think is really the most important thing. You've already talked about it a bit, but is there anything more you wanted to say about why increasing the adoption of electric school buses is so important?

Preeti Jaggi: Electrification is so important for multiple reasons. One, even if you're using a lot of fossil fuels to power your electricity, an electric vehicle is more efficient than a gas or diesel vehicle. Two, the electric vehicle doesn't emit air pollutants like particulate matter the way a diesel exhaust pipe does — you get a little from tire wear, but not from the tailpipe. So it's both a climate change solution, in the sense that it decreases carbon pollution because it's more efficient, and an air pollution solution, because it decreases the emissions that affect air quality. We know that directly relates to asthma, to stroke, to cancers, to cognition, and even kids without asthma see improved lung function every time air quality improves. So air pollution is such an important contributor to sickness, and even premature birth — really, across the age spectrum. And electrification is a better climate change solution because it decreases greenhouse gas emissions through efficiency, and you can't get off fossil fuels unless you have electrification — every time you use a fossil fuel to power a vehicle, you lose the chance to make that clean energy, but if it's electrified, you keep that chance open. So those are many of the reasons electric school buses are so important.

Eriqah Vincent: And then there's the equity issue once again — we know Black children specifically are twice as likely to visit the ER per year for asthma attacks and other asthma-related issues as white children. So there's more of the equity piece, the race conversation, along with all the air quality and climate change issues you just mentioned. Why is that so important?

Preeti Jaggi: Yep, and premature birth too — African American children are more likely to have premature birth. So those are many, many reasons to electrify.

Eriqah Vincent: Absolutely, absolutely. We've also had someone else talking about electric transportation on the show this year, so I'm really glad we're diving into this — it's not directly my wheelhouse, but I'm learning a lot about electrification and why it's so important to multiple communities, all of our communities, but certainly the Black community. So how can the Georgia climate community support this really important work your organization is doing?

Preeti Jaggi: We're definitely always looking for champions to help us spread the work we're doing. We train any healthcare workers — therapists, social workers, anybody who works with patients — as Healthy Air is Healthcare champions. We do a short training for them, usually on a Sunday afternoon, and go through some information, especially about air pollution, because many of us haven't gotten training in that, and then we ask them to do some advocacy activities. Anybody who might be interested is welcome to join us. Our other organization is Mothers and Others for Clean Air, which is a great group to join if you're a parent or somebody concerned about this — they have wonderful information for the public to join, and we often call on people to help with advocacy, like writing to a government official. We also worked on encouraging people to vote in the Georgia Public Service Commission election this year, and made some materials about why that's important. So we'd definitely love to have people join us — I can share our information in the chat. We plan to continue this work as long as possible. Mothers and Others for Clean Air also does other work around indoor air quality that people can get involved in. So just reach out to either Georgia Clinicians for Climate Action or Mothers and Others for Clean Air, and we'll be happy to have you on board as a healthcare champion.

Eriqah Vincent: I love that, thank you again, Dr. Jaggi. This is really important work, and I feel very strongly about the entrance of medical professionals into this conversation around climate. I think it's a big step, and not necessarily something people automatically think of, but I'm glad to hear that more and more doctors, and especially pediatricians, are finding that this is an important conversation for them to be part of.

This is my favorite question — it's our last one, so I can't wait to hear your response. What is giving you hope around climate in Georgia?

Preeti Jaggi: What gives me hope around climate in Georgia is meeting people who are doing the work. I gain a lot of energy from hearing what people are doing. There are so many people at little local levels doing work in this area, and sometimes people look at the federal level and say, "Oh, they're not doing this," or "This is going badly," but that doesn't change what's happening on the ground, and what people are doing on the ground is really, really working, in small systems. When I see those things happening, that gives me hope. We don't need to ask anybody at the federal level about what we're doing — we're just working at the local level, whether that's giving a talk this morning to our faculty about how we can decrease our own emissions by avoiding unnecessary tests for patients, which decreases waste, or talking to our school boards, talking to people doing this work in Georgia. That gives me a lot of hope. There are so many wonderful people I've met doing this work, and that's what gives me hope.

Eriqah Vincent: Amazing, thank you for what you said about not worrying about what the federal government is doing — the local work is happening, and it continues to happen. My best friend always says, all politics are local, and we know that local work is so, so important for all of this to continue. Thank you so much for saying that, and thank you for the work that you and Georgia Clinicians for Climate Action are doing, and for the work you've all done on this electric school buses project — I think it's so important. Thank you again for joining me today, I really appreciate it, it's nice to speak with you, Dr. Jaggi.

Thank you all so much for joining us for another iteration of our interview series. I hope you'll come back, and I hope you'll make sure to view all of our interviews — they're all on our YouTube channel, so please go back and watch all of our amazing interviews from the last two years, it's been really fantastic. Thank you again.