

Climate Change and Health: What Can We Do?



PODCAST 40

00:10

Dr. Jane Caldwell

Welcome to the *On Medical Grounds* podcast, your source for engaging, relevant, evidence-based medical information. Today On Medical Grounds, we will be speaking with Dr. Mona Sarfaty, founding Executive Director and now Emeritus Executive Director of the Medical Society Consortium on Climate and Health. This is a coalition of medical societies which was organized to publicly sound the alarm and address the growing health and equity consequences of climate change. Prior to that, Dr. Sarfaty was director of the Program on Climate and Health at George Mason University. Dr. Sarfaty has been engaged in communication and policy development regarding the impact of climate change on health for nearly two decades. She is the author of *Climate Change and Population Health: A Primer*, many peer-reviewed articles, reports, and two book chapters on climate change and health.

Dr. Sarfaty, welcome to *On Medical Grounds*.

Dr. Mona Sarfaty

Thanks for having me.

01:13

Dr. Jane Caldwell

The Medical Society Consortium on Climate and Health describes climate change as the greatest public health crisis of the 21st century. Tell us what is meant by that statement.

Dr. Mona Sarfaty

Well, we have heard now from international religious leaders, everybody from the Pope to leaders of other major religious denominations, international leaders of leading states like the United States and the heads of the European governments and governments across the world, really, and from United Nations and other international leaders that climate change has become a crisis, that it's robbing us of our future, it's degrading the world that our children and grandchildren are inheriting, it's causing migration around the world with increased conflict that is going along with those patterns of migration. And it's causing environmental disasters like floods, droughts, fires, extreme heat waves that are killing more and more people every year. They're dislocating many people and populations and are shocking many more who are seeing what's happening and have become very concerned, if not distraught, about it.

02:48

Dr. Jane Caldwell

Do some communities experience greater harm than others?

Dr. Mona Sarfaty

Everybody is at risk because of climate change, but some people are at greater risk. And that includes children who spend more time outdoors, pregnant women who it turns out are more vulnerable to heat and also to poor air quality. It includes elders who are more vulnerable to heat. It includes people with underlying health conditions, especially heart, lung, or kidney conditions; those who work out of doors as well, people with only average savings who would find it very difficult to bounce back from disasters, and those who live in communities that have a history of racial injustice. So, that's a lot of different communities of people.

03:46**Dr. Jane Caldwell**

How can we slow or stop harm to our health and the health of others?

Dr. Mona Sarfaty

Well, what we need to do is very clear. We need to reduce our reliance on fossil fuels and transition away from them in the way that we power our homes and our buildings, in the way we transport ourselves, in the way we generate power for our industries. We need to change our diets by focusing on plant-forward meals, such as Mediterranean diets that have less meat that involves pastures and cutting down of forests to create more pastures. And we need to transition to regenerative agriculture that is less reliant on the kind of fertilizers that are nitrogen-based and therefore also generating more greenhouse gas and more pollution of our waterways, which generate more algae blooms and dead spaces in our waterways, and thereby make it difficult to keep the population of fish that is the basis of diet for many peoples around the world to keep those available. So there are many things that we need to do.

There's more than enough for every country, every community, and every individual to think about what they can do to contribute to the many solutions that would be part of addressing climate change. We need to improve energy savings and energy efficiency because we're wasting a great deal of energy.

Just recently, I noticed that many of our local supermarkets have added refrigerator doors to the cold shelves that had the cheeses, the yogurts, and the other products, which were refrigerated, but not enclosed. And so that's a great example of where a lot of energy was being lost. And the benefit that we can get from energy efficiency is very substantial. We could probably reduce our energy use by 25, even up to 40 percent, just by using the energy efficiency solutions that are at our fingertips. We also need to draw down and sequester carbon that's currently in the atmosphere by growing more grasslands, or just leaving grasslands in place that can sequester carbon, leaving wetlands in place that have a lot of those grasses that sequester carbon, by leaving the forests in place and by leaving more wild places that also absorb carbon. So those kinds of land use policies are included in the list of things that can contribute to getting us out of this climate crisis that we're in. And then we have to protect the increasing number of us who are very vulnerable to floods and fires and storms by making physical changes in our buildings, in our roads, in our communities that will help protect people from the heat waves, extreme heat waves, from floods and can reduce the risk of fires, et cetera. So there's a very clear list of solutions that we can pursue that will help protect us and also address longer-term climate change.

07:51

Dr. Jane Caldwell

You know, I remember when medical studies could actually change the way we did things. Do you remember when we used to have lead in gasoline and we had to have reports telling us that it was dangerous to the health of our children and to our kidneys and our lungs? Medical reports like that can have an effect on legislation. Do you have an example recently of similar legislation that was passed after a medical report came out?

Dr. Mona Sarfaty

Yes. Well, one of the greatest pieces of legislation that has benefited health in the last half a century is the Clean Air Act. And we have had an improvement in air quality in many places in the United States because of the Clean Air Act, which has meant that there's less smog in many places.

There's less particles in the air and less of some of the other pollutants, which all contribute to poor lung health and are especially problematic for people who have underlying lung problems like chronic lung conditions or asthma. And just what we've done already has already saved many lives since 1970 when the Clean Air Act was passed. The problem is that as the carbon dioxide in our atmosphere increases, some of the progress that we've made is now threatened. And that's because the hotter air conditions are actually leading to the formation of more ozone once again. And as that ozone increases, the benefits that we've gained through the Clean Air Act are declining. And in some places they're declining by quite a bit. So tightening up the provisions in the Clean Air Act, which have been protecting us for 50 years, is something which we can do, which would be very helpful. Of course, air quality is also affected by the forest fires that have raged across the Western part of the United States for a number of years now, and which cause a great deal of smoke to travel from the area of the fire to neighboring communities and then neighboring states, and in some cases, even across the country. And so by doing what we can to address climate change, reduce the likelihood of drought, protect the forests, we'll reduce that type of air pollution and protect people from it.

And then of course, many people will remember that it was not just the Western United States, but it was Canada, which this summer and the summer before had some large wildfires that caused release of smoke to travel all the way to major US cities like New York and Washington, DC, and which caused a lot of emergency room visits and health alerts with people urged to stay indoors or to wear N95 masks. So poor air quality is definitely something that we have seen as an increasing risk and which we can address with very specific measures now as we have in the past. And then of course, water quality is endangered by floods because in many places stormwater runoff combines with sewage pipes.

And when there are floods, all of that backs up. So in other words, the stormwater system can't accommodate the increased load of the storms and the rain and everything that goes through those pipes backs up and causes sewage to be present in communities and even in homes, even in individual homes. And so when that happens, of course, people are exposed to the sewage, in some places they're exposed to contaminated water, even contaminated drinking water. And so improving those stormwater runoff systems is something that some communities have already done, and other communities could work on right away.

12:27

Dr. Jane Caldwell

The mission of the consortium is to mobilize and amplify the voices of doctors and public health experts. What are the strategies that you use to get people involved and make their voices heard?

Dr. Mona Sarfaty

Well, we have focused on two main strategies. One is education, education and awareness as one category. And the other is to get people to speak out about the problems. And that includes just speaking to their family, speaking to their neighbors, just talking about it so that there is more knowledge in general in the population and speaking directly to their government leaders and their legislators. And so the consortium does a combination of education and advocacy by presenting at meetings that can be local faith-based sites where people attend the weekend meetings of their congregations and educate about these problems.

It can include local civic organizations like the Lions or some of the others that we know of, the Rotary Foundation; can include meetings of women's clubs and sports clubs and hunting clubs and any place where people gather, presentations can be made to make them aware of climate change, the way it impacts us, the way it endangers our children and our grandchildren, and of the many things that we can do about it that can change the course of our history and change this looming crisis that we face as a country and as a planet really. And so we also encourage people to speak to their public officials, whether they be local officials or state officials or federal representatives to go and volunteer to speak at hearings. There's a lot of hearings that are public and ask for input from citizens. So people can go and speak at hearings and the consortium encourages that. There are public utility commissions in every state. They typically have responsibility for determining what the source of energy will be in that state, where, in other words, the electricity is going to come from, what energy will get translated into the electricity that people use in their homes, and what energy will be used in the homes. And so public utility commissions often have hearings and allow for public input. And they can be very powerful places for people to go and speak out and let the members of the commission know about their concerns and know that they support clean energy, they support the transition away from fossil fuels, they wish to protect their children and their grandchildren, and they wish to protect their own health and the health of their communities. And then another way that the consortium works is to encourage its members and others to write opinion pieces for local newspapers, regional newspapers, national newspapers, to write letters to the editor, to call in to local radio stations. In other words, to voice their concerns in whatever ways are available in their communities.

Yeah, and of course the other thing that people can do is to vote. They can find out when they have candidates that are running for office, which candidates really are eager to address climate change. And that's usually pretty obvious just by going to the website of a candidate. And so they can decide that they're gonna vote for those candidates who are trying to do something about climate change.

16:46

Dr. Jane Caldwell

Good point. As you know hospitals and clinics use a lot of energy and consumables. A Commonwealth Fund survey came out in the beginning of this year that found nearly 80 percent of clinicians felt that it was important for their hospital to address climate change. We're talking about reducing waste and water consumption, adopting greener building features, converting to renewable energy, and upgrading facilities to withstand extreme weather damage. Are you aware of any real-life examples of any hospitals achieving these goals?

Dr. Mona Sarfaty

Absolutely. There is an entire organization that focuses on this. It's called Healthcare Without Harm. And they have a membership right now of about, I think it's a fifth to 25% of all the hospitals and health systems in the United States. And these members of their group are all trying to figure out how they can reduce their carbon footprints and how they can also become resilient because many of them are in direct danger of the kind of climate disasters that we have been talking about. They're in flood zones or they're in places where storms happen frequently and can cause power outages that make it very difficult for them to function. And so these hospitals have been trying to figure out how they can become more resilient and how they can do a variety of things that will make them part of the solution to climate change rather than part of the problem.

And some examples there are that hospitals tend to be very energy intensive institutions. And in many places, they're actually quite wasteful. They're wasteful of energy, they're wasteful of disposable products. And of course, all those products required energy to be produced. And so by careful attention to how they're getting their energy and what they're consuming and how much waste they're creating, they can address their own carbon footprint. And this concern has become so primary or so powerful that the National Academy of Medicine, which is a part of the National Academy of Sciences Engineering and Medicine, has over the last two years, established what they call the Grand Challenge of Climate Change. And they have put out a series of reports and resources for people in the health sector so that they understand what the sources of the contribution to the problem are that are coming from the health system and what we can do about it. And so that's two years of work on the part of the National Academy of Medicine, which is now available on their website. And the resources that they have made available for people who work in hospitals or communities that have hospitals around the country. And so some of those hospitals that are part of Healthcare Without Harm have been working on this for a number of years. They go back 20 years actually. And they have saved money, they've decreased their energy use, they've changed over to renewable energy or to multiple sources of energy with less reliance on fossil fuels.

And in the process, they've saved quite a bit of money. A number have saved millions of dollars. And others have figured out how they can become more resilient against the floods and storms that threaten their operation when the weather is threatening. And so, many people have probably heard about the great problems in New York City during Superstorm Sandy 2012, where they had to take all of the premature infants and actually evacuate them from New York University Hospital and take them to other hospitals because their energy systems were in the basement. And when the floods occurred, the energy systems were lost and they didn't even have the kind of emergency power that they needed to run the hospital. So many people have heard about that or they've heard about what happened in Texas, I think it was in Houston, back around 2005, 2006 even, where they also had problems with energy systems that were in the basement. And so many of those institutions that became aware moved their energy producing systems to the upper floors or they did other things to protect the hospitals from floods.

And so the resilience of the hospital, the energy profile, the carbon footprint, all of these things can be addressed in ways that protect the hospital and address climate change at the same time.

22:16**Dr. Jane Caldwell**

Well, thank you for all that information and all those examples. For our listeners, we will provide links to all the sites that Dr. Sarfaty mentioned. Dr. Sarfaty, what is something we can do right now today after we leave this podcast to reduce the effect of climate change on health?

Dr. Mona Sarfaty

Well, I guess, given that it's an election year, the immediate thing I would point out is that we are all going to have candidates who we're being asked to vote for. And so we can choose among the candidates based on what they think about climate change and whether they are making a priority of addressing climate change. So voting is one obvious thing that we have and you know really a very important one.

And then we can pick some of the many ways that we can reduce our own carbon footprints and that includes everything from diet, you know, selecting a plant forward diet or a vegetarian diet or a Mediterranean diet, diets that don't involve raising cattle, which are very extractive of our resources, very demanding on our resources, and require a lot of grazing lands in a way that in many parts of the world is leading to the cutting down of major forest, cutting down the Amazon jungle in order to make grazing land so that cattle can be raised and ranchers can make their living off of cattle.

So our dietary choices actually have an impact on something like that. And then the way that we travel can make a difference. If we are interested and, you know, are ready to do it, we can think about getting electric cars and electric trucks. We can choose to take the railway rather than to fly, we can choose to walk and bicycle rather than to drive. And, you know, clearly not everybody's going to be in a position to get on a bicycle and many people won't even be able to walk. But the point being that is one of the many ways where we have options, and we can choose the options that are best for us and that also help to support the climate.

We also can make decisions in our home because about 40% of all of the carbon in the atmosphere comes from the energy that's used in our houses. And that includes energy that goes into heating and air conditioning the house, that goes into heating the water, hot water heater in other words, powering the stove, providing the electricity, et cetera. And for each one of those, there are more efficient choices that can be made or electric choices that can be made that involved heat pumps and ways of getting heat that don't require fossil fuels. So the way we cook our food, the way we heat our homes, the way we light our houses, the way we use electricity, or the way we get electricity, all of that involves decisions that we can make that can affect our carbon footprint. Many people will remember that the electricity sector was deregulated a few years ago. And so most communities have more options for who's gonna provide their electricity than they did, let's say, 25 years ago. Some of those choices are actually companies that make electricity from renewable sources rather than from fossil fuels.

And so that's something that we can check on. And if it looks like it's the right thing for our household, we can buy electricity from alternative suppliers who make it from renewable energy rather than fossil fuels. So, and then another thing that we can do is to just speak to our families and speak to our neighbors and friends. Tell them that we're concerned about climate change and that we've learned that there are many things that we can all do and tell them what you're doing.

It just becomes part of a conversation that people have with each other that helps to inform and makes it, that normalizes the concern and normalizes actions that people can take to address climate change.

Dr. Jane Caldwell

Dr. Sarfaty, thank you so much for taking time to speak with us and for your work mitigating climate change.

Dr. Mona Sarfaty

It's my pleasure. I've got children and grandchildren and so I hope you know that this has been helpful.

Dr. Jane Caldwell

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