Renee Salas MD, MPH, MS, had to do some detective work when a young patient of hers presented with an asthma attack for the third time in a week at the emergency department.

The girl’s mother felt overwhelmed and helpless. “I was struck also with—what was I missing as a clinician?” said Dr. Salas, a climate and health expert and emergency physician at Massachusetts General Hospital. Digging in deeper, Dr. Salas observed that the girl was living in an area with enormously high pollen levels and air pollution.

Physicians are trusted messengers of health for their patients, said Dr. Salas, also assistant professor of emergency medicine at Harvard Medical School. With climate change increasingly affecting the environment, all physicians should be thinking with a “climate lens,” Dr. Salas said during a recent episode of “AMA Moving Medicine.”

Thinking with a climate lens means looking “at everything within health and health care delivery to understand how it’s impacting things now and will increasingly so in the future,” she said.

A “threat multiplier”

Climate change has been and will continue to harm the health of patients, making it harder for physicians to do their job, said Dr. Salas, who was elected to the National Academy of Medicine for her work on climate change and health.

It is a “threat multiplier,” exacerbating other current threats such as COVID-19, she said. “It is already touching everything we care about … and it’s a meta problem, meaning it’s underlying these other things.”

Find out more about AMA policy on global climate change and human health.
Direct, indirect impacts

Addressing climate change factors is a prescription for improving health. From wildfires to pollen to COVID-19, climate change affects health through direct and indirect avenues, said Dr. Salas.

Direct impacts are what you see in the headlines about extreme weather events and wildfires. “The Pacific Northwest heat wave, which happened in June of 2021, was deemed to be virtually impossible without climate change. And it reached upwards of 116 degrees Fahrenheit in Portland, Oregon,” she said. Subsequently, this led to a rise in emergency department visits.

Indirectly, climate change has made pollen season 50% longer, affecting people with allergies and asthma. “In addition,” Dr. Salas noted, “there’s food and water impact, vector-borne diseases, social factors like displacement.”

Climate change also has caused health system disruptions, affecting access and cost and quality.

“And if we think about ways that it’s impacting infrastructure or causing power outages or having implications in the supply chain, that is another big bucket that has significant implications,” she added.

Learn why physicians see climate change as a health emergency.

Adding climate change to clinical practice

As with so much else, climate change has an inequitable impact on patients’ health due to structural factors. Physicians can incorporate this thinking into their practices, finding like-minded people and policymakers to get to root causes and effect change, she said.

Assess what geographic exposures are driving climate change where you live and start to add a “climate lens” to your triage, Dr. Salas advised physicians. One strategy would be to insert a flag in the EHR to potentially “identify when we should be looking for heat-related illness.”

Learn how Kaiser Permanente manages at the burning edge of climate change.

Medical education component


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Medical schools should be incorporating climate change into the curricula, to train the physicians of tomorrow, she added.

“You’re already learning about the pathophysiology of asthma. So just add another slide or two or add a learning objective and problem-based learning that allows the learner to recognize how climate change is impacting that condition that you’re talking about.”

Doctors should also receive rapid training in vector-borne diseases as they become more prevalent, she said.

“AMA Moving Medicine” highlights innovation and the emerging issues that impact physicians and public health today. You can catch every episode by subscribing to the AMA’s YouTube channel or the audio-only podcast version, which also features educational presentations and in-depth discussions.