

**COMMENTARY**

# Climate Change: How Will Family Physicians Rise to the Challenge?

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Across the United States, communities are feeling the health impacts of climate change. It is undeniable that from heat waves to flooding, climate change currently poses a risk to the health of our patients. Though we can still mitigate the worst effects of climate change if we take action to reduce carbon emissions, we must be aware of how our communities are currently affected to help patients adapt to climate-related threats to their health. Increased temperatures in cities devoid of green-space have been linked to adverse birth outcomes such as preterm birth and stillbirth.<sup>1</sup> This disproportionately affects black and brown communities, who have less access to the protective cooling factors of greenspaces or air-conditioning compared with predominantly white neighborhoods.<sup>2</sup> As temperatures rise, the extended life cycle of mosquitoes allows for increased transmission of diseases previously isolated to the tropics. Cases of Dengue Fever are already increasing in the Southwest.<sup>3</sup> Furthermore, climate refugees have already gained global awareness. Within the United States, 1.2 million people were displaced in 2018 due to natural disasters fueled by climate change such as fires, drought, coastal flooding, and hurricanes.<sup>4,5</sup> These reasons and more are why many health professionals have stated that climate change is the “greatest threat to global public health”.<sup>6</sup> The question we must ask ourselves and our colleagues is: How will family physicians

rise to the challenge to address climate change for the health of our patients and communities?

Our role as physicians in addressing the health impacts of climate change must be multifaceted. To begin, we must first inform ourselves and our colleagues. In one study, it was found that 64% of family physicians “believe climate change is affecting their patients’ health,” however, only 17% felt comfortable counseling patients on the relationship between climate change and health.<sup>7</sup> We have the power to change our practice and educate ourselves through resources provided by organizations such as Global Change<sup>8</sup>; Harvard’s Center for Climate, Health, and the Global Environment<sup>9</sup>; and the Medical Society Consortium on Climate and Health.<sup>10</sup> We must strengthen partnerships with local climate scientists and public health departments to better understand the risks to our patients. There is an emerging field of Climate Health with fellowship training programs<sup>11,12</sup> and residency curriculums<sup>9</sup> available for collaboration. We must make this education a standard part of medical school and residency training to ensure that future physicians are adept to address climate change both within an office encounter and the communities in which they practice.

The information shared between a primary care physician and patient is more vital than ever as patient trust in the US health care system has significantly eroded during the COVID-19 pandemic. However, patients’ trust in their primary care doctor remains higher than that of the health care system overall.<sup>13</sup> Given the parallels of misinformation and politicization of COVID-19 and climate change as related to health, the doctor-patient relationship is an important resource to educate, counsel, and empower patients to mitigate the effects on health. During acute visits and well examinations, we can include anticipatory

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counseling related to the health issues patients in our community are most likely to encounter. Physicians treating patients in areas prone to heat waves or with occupations related to prolonged outdoor exposure such as agricultural and construction workers need to counsel patients on measures to avoid heat stroke. Those in areas prone to wildfires or poor air quality must be prepared to treat cardiovascular and respiratory illnesses worsened by increased particulate matter in the air and counsel patients on methods to minimize exposure. Flooding and rising sea surface temperatures will increase gastrointestinal disease and water-borne illness spread. As the primary point of contact for many patients, family physicians will be among the first to notice further changes in frequency and geographical distribution of vector borne infections such as Lyme disease<sup>14</sup> and dengue<sup>3</sup> caused by increased temperature extremes.<sup>3,14</sup> We also need to address the effects of climate-related catastrophes on mental health including grief, trauma, and building resilience.<sup>14</sup>

We also have a powerful voice as advocates. We must use that voice to approach local or national legislators to support measures that will mitigate climate change while assisting communities to adapt to the changes already at hand. No one knows the specific health related needs of a community better than a primary care doctor. We can assist local public health departments and hospital systems in disaster preparedness. We must also look at our own institutions' contribution to carbon emissions. If the health care industry were ranked as a country, we would be the fifth largest emitter of greenhouse gases.<sup>15</sup> Hospitals and clinics rely heavily on fossil fuel-based energy and each laboratory test, imaging study, and pharmaceutical intervention increases this intensive energy demand.<sup>16</sup> Reducing waste, transitioning to reusable products, sourcing products made of recycled materials, urging health care administrators to address energy efficiency and increase local procurement practices, and continuing to incorporate telemedicine visits are just a handful of ways we can begin to make institutional change. We must urge our clinic and hospital administrations to look for sustainable solutions and we must be leaders in changing clinical practice and local systems to achieve these goals.

There are many ways in which we can become a part of the collective effort to reduce carbon emissions, strengthen existing systems, and find creative ways to educate and empower our patients and communities to

build a healthier future in the face of climate change. Through accessing available educational resources, we can apply that information to our routine encounters with patients. In doing so, we are more informed members of the community and can better contribute to and lead the discussions on institutional and political action. The task of addressing climate change to improve the health of our patients and communities is attainable if we use our unique position as family physicians to rise to the challenge.

To see this article online, please go to: <http://jabfm.org/content/37/1/4.full>.

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