AAMC

GIP Strategic Planning and Management Subcommittee

June 10, 2024

Climate, Change

Why?

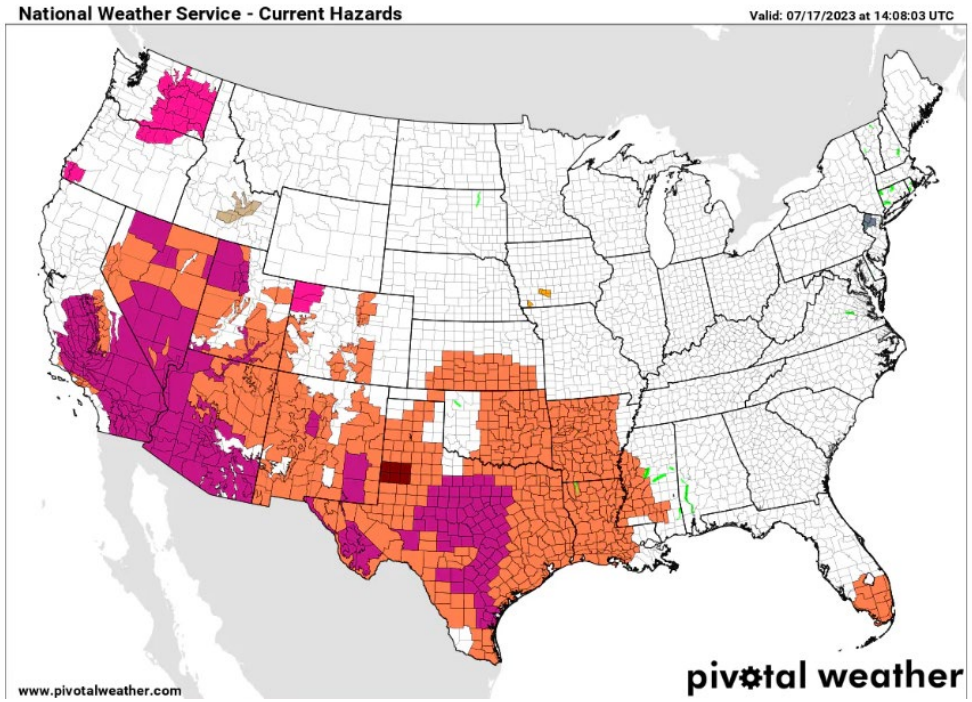
The Washington Post
Democracy Dies in Darkness

Severe heat wave in southern U.S. remains entrenched as records mount

Nearly 100 million Americans are under heat alerts after temperatures approached all-time records in Reno, Las Vegas, Flagstaff and Salt Lake City on Sunday

By Matthew Cappucci

July 17, 2023 at 12:55 p.m. EDT

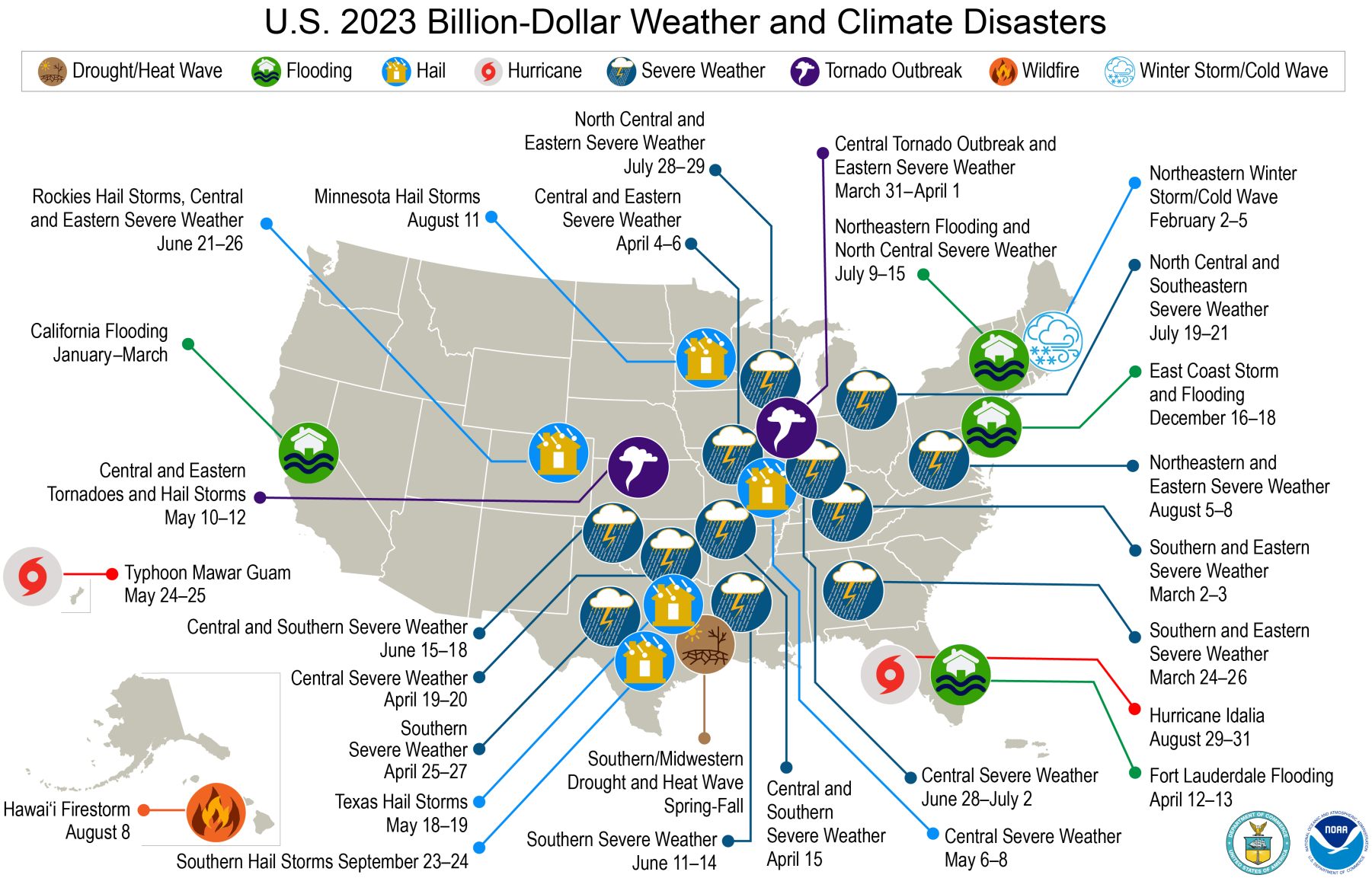


Outside
Outside Feed Gear Run Adventure Health Travel Culture Long Reads Videos Podcasts Winter Gear Guide

The Historic Kentucky Floods Were a Waking Nightmare—and They're Only the Beginning

Harrowing flooding in eastern Kentucky offers a window into what climate change will—and does—look like

Billion-Dollar Weather and Climate Disasters on the Rise



*This map denotes the approximate location for each of the **28 separate billion-dollar weather and climate disasters that impacted the United States in 2023.***

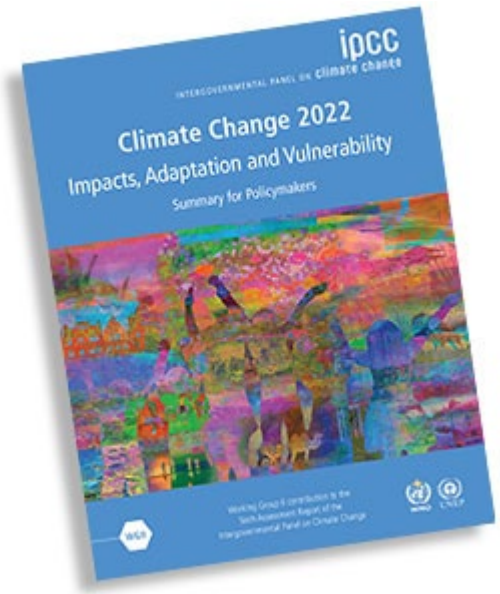
PBS NEWS HOUR

By –
Seth Borenstein, Associated Press

248 comments

Climate change report is ‘a code red for humanity,’ U.N. warns

World Aug 9, 2021 9:30 AM EDT



Latest Local News Live Shows ...

CBS NEWS

U.S. World Politics Entertainment HealthWatch MoneyWatch Crime Sports Essentials

WORLD

Climate change is "single biggest health threat facing humanity," WHO says

By Greg Cannella
October 11, 2021 / 6:56 PM EDT / CBS News

The NEW ENGLAND JOURNAL of MEDICINE

SPECIALTIES TOPICS MULTIMEDIA CURRENT ISSUE LEARNING/CME AUTHOR CENTER PUBLICATIONS

EDITORIAL

Call for Emergency Action to Limit Global Temperature Increases, Restore Biodiversity, and Protect Health

Authors: Lukoye Atwoli, Abdullah H. Baqui, Thomas Benfield, Raffaella Bosurgi, Fiona Godlee, Stephen Hancocks, Richard Horton, +11, and Damián Vázquez Author Info & Affiliations

Published September 5, 2021 | N Engl J Med 2021;385:1134-1137 | DOI: 10.1056/NEJMe2113200
VOL. 385 NO. 12

Climate change

Health risk

Vulnerability factors
- Demographic
- Geographical
- Biological factors & health status
- Sociopolitical
- Socioeconomic
- Health system capacity
- Gender & equity

Climate-related hazards
- Extreme weather events
- Heat
- Sea level rise
- Air pollution
- Vector distribution & ecology
- Water scarcity
- Reduced food production

Exposure
- People & communities
- Health workforce
- Infrastructure
- Energy systems
- Water systems
- Food systems
- Health systems

Environmental threats and GHG emissions

Health outcomes

- Injury and mortality from extreme weather events
- Heat-related illness
- Respiratory illness
- Water-borne diseases and other water-related health impacts
- Zoonoses
- Vector-borne diseases
- Malnutrition and food-borne diseases
- Noncommunicable diseases (NCDs)
- Mental and psychosocial health

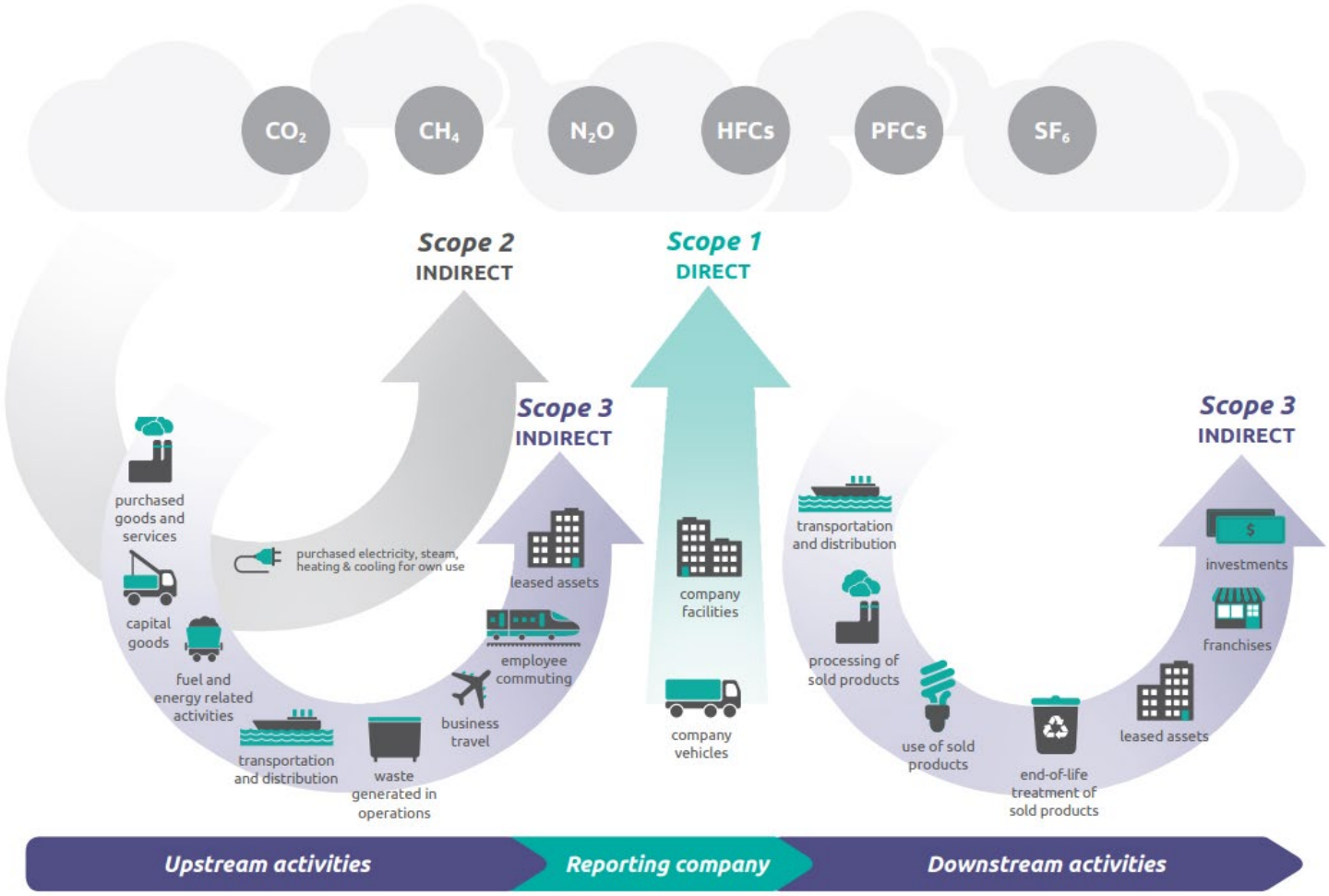
Health systems & facilities

- Impacts on health care facilities
- Effects on health systems

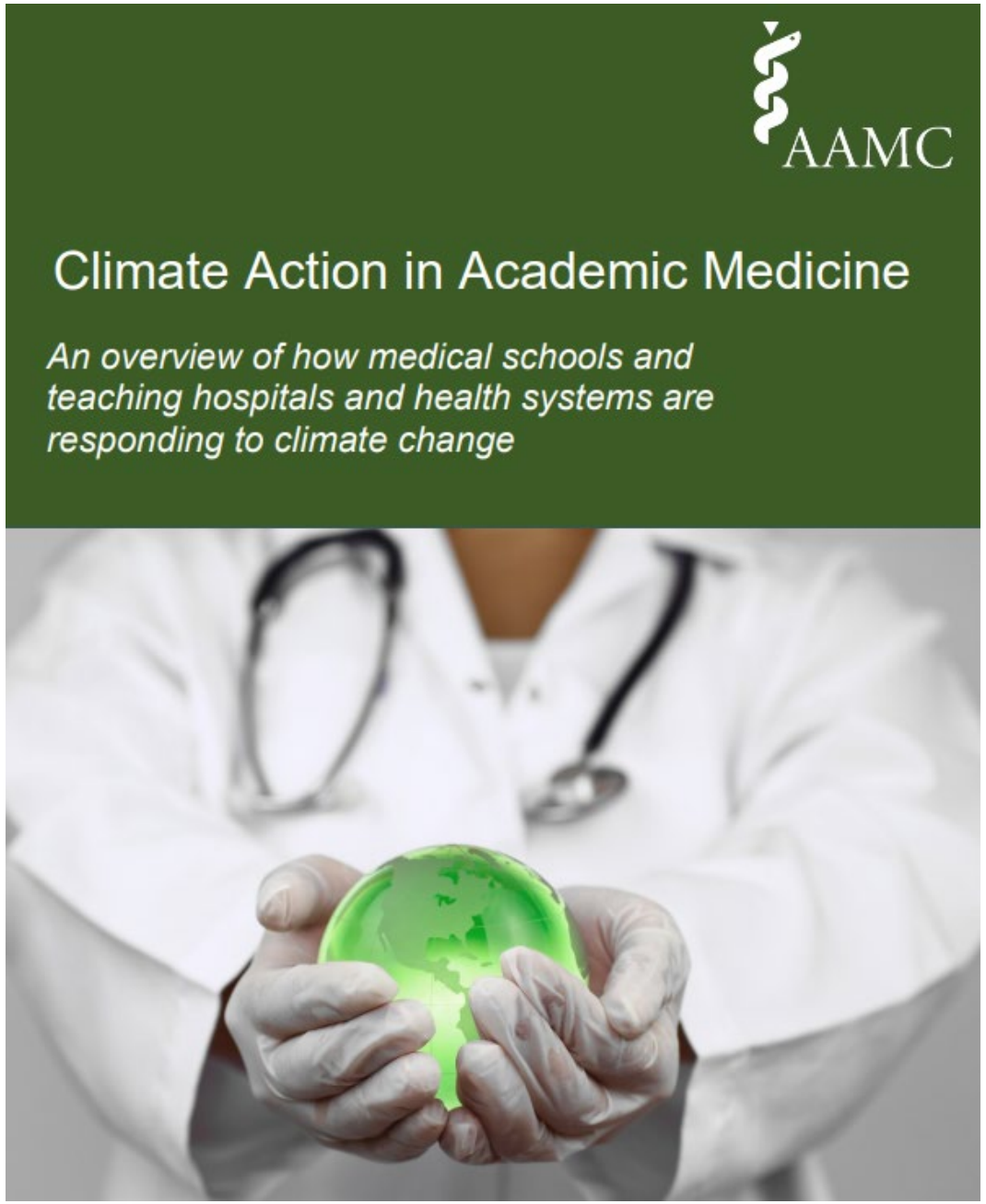
https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health

First, Do Not Harm…

- **Health sector responsible for 8-10% of carbon pollution in the U.S., directly and indirectly**
- **If the U.S. health sector were a country, it would emit more carbon pollution than the U.K.**



Climate Action in Academic Medicine



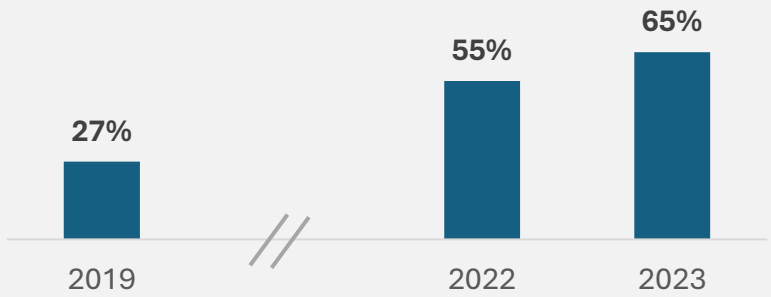
50% of academic health systems and

80% of medical schools and universities

were taking some type of climate action

- Tracking GHG emissions
- Goals to reduce GHG emissions
- Goals to prepare for impacts

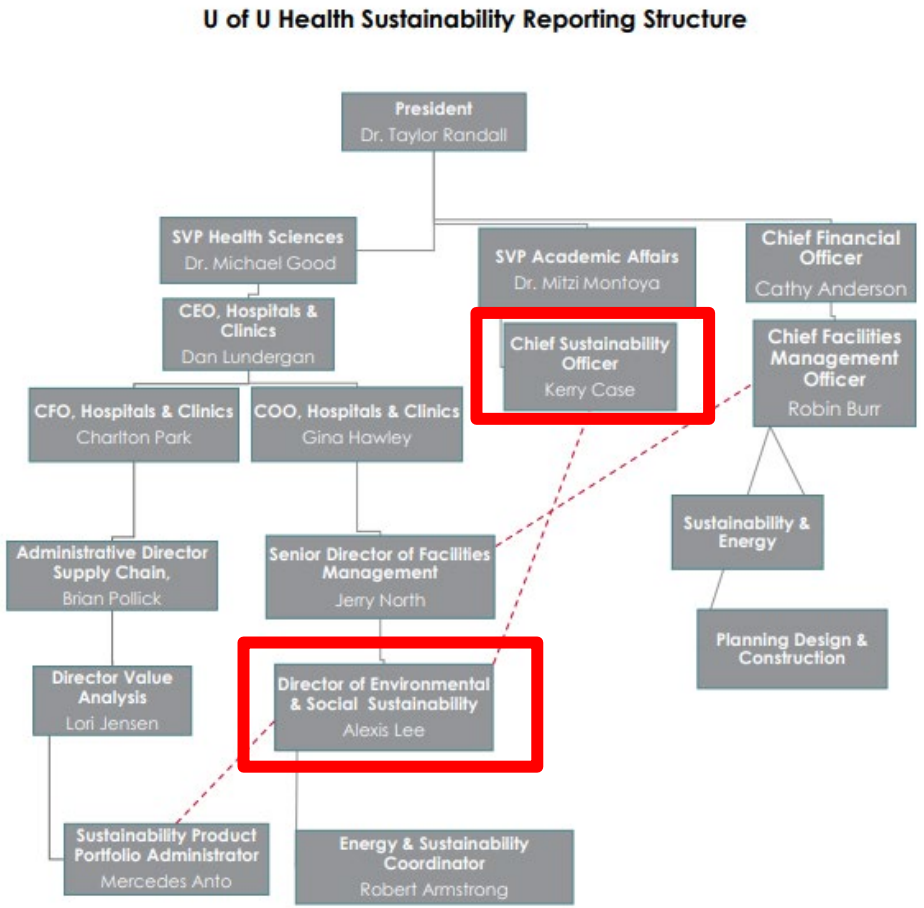
Medical schools with required curriculum on the health effects of climate change



LCME Part II Annual Medical School Questionnaire

Integrating Sustainability Across the Clinical and Academic Enterprises

- System-wide model
- Matrixed or shared accountability between AMC and university/med school
- Strategy lead in academic enterprise coordinates efforts with separate clinical enterprise
- Combined senior role in both medical school (associate dean for sustainability) and health system (chief medical sustainability officer)



AAMC Efforts

LEARN SERVE LEAD 2022
THE AAMC ANNUAL MEETING

Why Climate Action Is the Future of Medicine and How Health Care Professionals Can Make a Difference

Facing the facts:

- As the burning of fossil fuels and the resulting acceleration of climate change make people more ill and complicate how to care for them, the medical field must confront the crisis more directly by integrating climate change factors into patient care and medical student education, reducing the carbon footprint of the health care industry, and advocating for public policies that protect the environment
- Climate change's impact on health can be seen in the effect of air pollution, rising temperatures, and increasingly severe weather events on human health, including more heat stroke, asthma, stress-based mental illness, preterm births, and premature deaths, and the increased spread of insect-borne disease

Shaneeta Johnson - Facilitator
MD, MBA
Department Director, Residency Program Director, and Professor
Morehouse School of Medicine

Renee N. Salas - Speaker
MD, MPH, MS
Harvard Global Health Institute
Harvard Medical School and Massachusetts General Hospital

Aaron Bernstein - Facilitator
MD, MPH
Interim Director, Pediatric Hospitalist
Boston Children's Hospital

Commentary

Reasons for Optimism About Academic Medicine's Actions Against Climate Change

William T. Mallon, EdD, Deborah Deas, MD, MPH, and Michael L. Good, MD

Abstract

Since the first mention of climate change in *Academic Medicine* in 2009, the pace of the climate crisis has accelerated, its impacts on every facet of planetary health have grown more severe, and the urgency for humans to act has become more dire. Medical schools, teaching hospitals and health systems, universities, affiliated organizations, and the millions of people who traverse the halls of these institutions as leaders, physicians, scientists, educators, learners, patients and families, and community members have an obligation to respond. In this commentary, the authors describe 3 reasons they are optimistic that academic medicine will continue to act against climate change. First, the mission of academic medicine, inherently aligned with climate action, propels teaching hospitals and health systems to address climate change to improve the health of patients, families, and communities. Second, younger generations of learners, faculty, and staff who populate the workforce increasingly desire, and often demand, to work at institutions that are aligned with their personal values for climate action. Third, broader forces are pushing academic medicine forward in action against climate change. Economic factors will continue to reduce the cost and increase the return on investment of climate-smart facilities, purchased goods and services, fuel, transportation, food systems, and waste management. The authors are optimistic but not complacent. Current levels of climate action in academic medicine are not nearly enough. Faculty, staff, learners, leaders, patients and families, and community partners can and must apply a "climate lens" to everything they do: weave climate solutions into education, patient care, research, community collaborations, operations, and supply chain and facility management; integrate climate actions into strategic thinking, planning, and doing; address health inequities and climate injustice; and leverage their trusted voices to press for climate action and climate justice in the health sector and in society.

Since 2009, *Academic Medicine* has published numerous articles, commentaries, editorials, and letters to the editor about medical education and the impacts of climate change.[1–13] These works represent an important and growing body of literature about the need to incorporate the health effects of climate change into the full continuum of medical and health professions education.

In this commentary, we argue that the people and institutions of academic medicine in the United States must do that and much more. We harken back to the first mention of climate change in *Academic Medicine*: in a letter to the editor in 2009, MacPherson argued that the U.S. medical profession was "overdue in recognizing climate change as a health problem and in formulating constructive responses" and "should negotiate means of reducing its own carbon footprint while assessing and preparing for the shifting disease burdens and health care needs associated with climate change."[1]

The academic medicine community in the United States has been slow to respond to this exhortation. In the intervening years, the pace of climate change has accelerated, its impacts on every facet of planetary health have grown more severe, and the urgency for humans to act has become more dire.[14] Medical schools, teaching hospitals and health systems, universities, affiliated organizations, and the millions of people who traverse the halls of these institutions as leaders, physicians, scientists, educators, learners, patients and families, and community members have an obligation to respond. Inaction will impair these institutions from delivering safe, effective, and efficient care and, thus, in fulfilling their very missions of improving health.[15]

While the science does indeed portend a challenging future, we are optimistic that medical schools and teaching hospitals against climate change for 3 reasons: (1) doing so is consistent with their purpose; (2) they will heed the calls from their people for greater action; and (3) external forces are pushing them to respond.

Purpose

The mission of academic medicine to improve the health of people and communities is inherently aligned with climate action. Teaching hospitals and health systems are acting to address climate change, first and foremost, to improve the health of patients, families, and communities.[16] Pursuing this mission means, at a minimum, the institutions of academic medicine should not contribute to the problem. And yet, they, like almost all institutions and organizations, are climate polluters. Researchers have estimated that the U.S. health sector is responsible for 8%–10% of greenhouse gas (GHG) emissions in the nation and a quarter of all global health care GHG emissions.[17–19]

Moreover, climate change is a threat multiplier for diseases, disabilities, and conditions,[20] as a key factor to health is the environment a person lives

Please see the end of this article for information about the authors.

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Acad Med. 2023;98:1243–1246.
First published online August 10, 2023
doi: 10.1097/ACM.0000000000005337

Opinion

VIEWPOINT

CLIMATE CHANGE AND HEALTH

Accelerating Climate Action Through Academic Health Systems
Leadership's Call to Duty

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Association of American Medical Colleges, Washington, DC.

Johnese Spisso, RN, MPA
Office of the President and CEO, UCLA Health and UCLA Hospital System, Los Angeles, California.

Multimedia

Climate action is an urgent public health imperative. Climate change is causing excess morbidity and mortality and posing an increasing threat to mental health and well-being,[1] with an additional 250 000 deaths projected annually between 2030 and 2050 due to heat, undernutrition, infectious diseases, and diarrhea alone.[2] The US health care sector is a significant contributor to this problem, responsible for approximately 8.5% of domestic greenhouse gas emissions,[3] which is considerably higher than peer countries.[4] Decisive, collective, and immediate changes are required for the future health of communities worldwide.

A Focus on US Academic Health Systems

While the entire US health sector needs to reduce and ultimately eliminate its carbon pollution, academic health systems (AHSs) must take particular action to significantly reduce and ultimately achieve net-zero greenhouse gas emissions. AHSs are likely to have even greater greenhouse gas emissions per square foot than nonteaching health systems due to the high acuity of care they provide and their large research infrastructure. AHSs treat an outsized proportion of low-income and underserved patients in the US,[5] the same populations that likely will endure greater negative impacts from climate change.

> By accelerating climate action in their institutions, academic health system leaders will advance their mission of promoting health and contribute to the reduction and elimination of climate pollution.

Adhering to the venerable principle of primum non nocere (first, do no harm), AHSs should be assiduous in taking climate action. Moreover, given their pivotal role in training the next generations of physicians, nurses, and other health professionals, AHSs have a special obligation to mitigate the greatest public health threat that these future health care professionals will confront over

Fortunately, these complex clinical and academic enterprises, which are among the largest and most respected systems in the country, are uniquely positioned to lead the health care industry toward meaningful and measurable climate action. Many, in fact, already are. As of December 2022, 53% of AHSs in the US were taking steps—including setting specific targets, tracking progress, and incorporating climate action into strategic planning—to reduce greenhouse gas emissions.[6]

It is indeed laudable that many AHSs have goals to reduce and ultimately eliminate carbon pollution, but far fewer in our estimation have concrete plans to meet those goals.

The simple fact is that the ravages of climate change will only intensify. While everyone employed by or affiliated with AHSs—learners, faculty, researchers, clinical staff, operational staff—has a role to play, AHS executive leaders have a particularly critical and compelling opportunity to drive systemic efforts to address climate change in their institutions, local communities, and nationally. What should these leaders do?

Reduce the System's Climate Footprint

First, leaders must ensure their systems have established greenhouse gas emissions baselines and set operating goals to reduce those emissions. Some AHSs have pledged to achieve net-zero emissions by 2050.[7] These greenhouse gas reduction goals should be "all in"—to include direct emissions (scope 1), purchased electricity (scope 2), and other indirect emissions (scope 3) across the clinical, research, and education portfolios of the system. Providing necessary infrastructure support to achieve goals is paramount and should include a designated member of the system's executive leadership team with accountability for these climate goals. To further organizational accountability and maintain transparency, progress should be reported regularly, institution-wide, and publicly.

Fully Leverage All Missions

Second, AHS leaders should leverage their institution's

- Mallon WT, Deas D, Good ML. "Reasons for Optimism About Academic Medicine's Actions Against Climate Change," *Academic Medicine*, November 2023.
- Washington AE, Mallon WT, Spisso J. "Accelerating Climate Action Through Academic Health Systems: Leadership's Call to Duty." *JAMA*, April 2024.

Virtual Community open to all

Climate Action & Sustainability in Academic Medicine

COMMUNITY HOME | DISCUSSION 157 | LIBRARY 27 | EVENTS 2 | MEMBERS 344

Welcome to the community for climate action and sustainability in academic medicine.

No other community can provide a more meaningful connection to the myriad people in academic medical centers working across mission areas (health care, education, research, community collaborations) to address the climate crisis and improve institutional resiliency.

JOIN THE DISCUSSION

Climate and Health Education Collection

The *MedEdPORTAL* Climate and Health Education Collection provides educators and institutions with peer-reviewed educational innovations to help health care professionals identify, treat, and prevent climate-related health issues while emphasizing equitable care for all patients and communities. Publications in this collection feature educational innovations on key topics, such as health care sector sustainability, climate policy advocacy, and equitable patient care for anyone to adapt and implement.

Featured Publications

Climate Change and Mental Health: An Interactive Educational Session

April 19, 2024

An Interactive Mapping and Case Discussion Seminar Introducing Medical Students to Climate Change, Environmental Justice, and Health

April 16, 2024

Policy Advocacy Workshop Tools for Training Medical Students to Act on Climate Change

August 17, 2023

Climate Change as a Social Determinant of Health: An Interactive Case-Based Learning Activity

August 2, 2023

Call for Submissions

MedEdPORTAL invites educators to submit their innovative curricula for publication consideration and shape the future of climate-informed health care.

ACCESS PDF

Author Development Program

Through a combination of expert guidance, curated learning resources, and interactive sessions, this free program empowers authors to refine their educational content, navigate the submission process, and increase their chances of successful publication in *MedEdPORTAL*.

LEARN MORE

Environmental Justice

Health equity cannot be achieved by medical care alone. Social and political factors greatly impact the health of communities, including the environments where they live, work, and play.

Many communities shoulder the undue burden of environmental injustices — pollution, natural disasters, infectious diseases, violence, and more. Effective interventions must be developed through diverse multisector partnerships and be reflected in policies and structures that can create real change.

Applying a Climate Lens

Phases of Awareness and Engagement in Sustainability and Climate Action Among Academic Health System Leaders

Disruptive Event
People or events challenged executives' worldview about the environment and their leadership responsibilities. Often, that awareness came from students and residents at the institution calling upon leadership to act

Critical Reflection
Leaders reflected on their existing beliefs, assumptions, and values and sought out experts inside and outside their institutions to help educate them on the health impacts of climate change.

New Perspective
Leaders developed a new way of thinking about climate change and their role in addressing it, focusing on the benefits to their students and faculty, patients, and communities.

Integration
Leaders applied a climate lens to everything they and their organizations do. Once they added that climate lens to their personal values and leadership responsibilities, it became an integrating force.