2023 Annual Meeting
SEIZE THE MOMENT FOR CLIMATE ACTION:
Building the Climate Health Movement

Meeting starts at 1:30 pm, please remain muted.
Johnson & Johnson’s commitment to environmental sustainability is grounded in the understanding that human health and environmental health are fundamentally linked. The company’s current climate goals include transitioning to 100% renewable electricity and carbon neutrality for all global operations and also working with suppliers to reduce value chain emissions.

You can learn more [here](#).

The Climate & Health Program at the University of Colorado School of Medicine has the critical mission to advance education and outreach on one of the greatest global health challenges of our lifetime. We offer a one-year Fellowship in Climate and Health Science Policy, a Diploma in Climate Medicine and a medical school elective course in Climate Medicine. Learn More [Here](#).
Research!America is a non-profit medical and health research advocacy alliance. Together, with our 300+ member organizations that represent a vast array of medical, health and scientific fields, our goals are: Achieve funding for medical and health research from the public and private sectors at a level warranted by scientific opportunity and supported by public opinion; Advocate for policies that support medical progress and innovation across the public and private sectors; Better inform the public of the benefits of medical and health research and the institutions that perform research; Promote and empower active engagement with the public and policymakers by individual members of the research community on behalf of medical and health research, public health, and science overall.

For more than 30 years, Research!America has commissioned public opinion surveys to help understand Americans’ views on medical, health, and scientific research and other pressing issues related. According to data released January 2023 survey commissioned by Research!America, Americans across the political spectrum agree R&D investment drives job creation, innovation, and global leadership. There is strong, bipartisan support for federal investment in our nation’s science and technology enterprise. View the January 2023 survey HERE.

The American Public Health Association’s Center for Climate, Health and Equity leads public health efforts to inspire action on climate and health, advance policy and galvanize the field to address climate change and advance equitable health outcomes. The Climate and Health Youth Education Toolkit is a brand-new resource designed to aid public health professionals in giving guest lectures on climate, health and equity at local high schools, summer camps, or anywhere students in grades 9-12 learn. The toolkit includes a lesson plan adapted from NIH resources, as well as supplementary materials for outreach, recruitment, and continued learning. Students leave these lectures with increased knowledge of the health impacts of climate change, vulnerable populations, and equitable mitigation and adaptation strategies, and lecturers leave having gained valuable practice in climate and health communication and a deeper connection with those in their community.

More Resources Here.
For nearly 50 years, Trust for Public Land has worked with cities to help make vulnerable communities more equitable, livable, and resilient to the effects of climate change. Learn more about our climate programs at tpl.org/our-commitments/climate.

**ParkServe**: This national tool maps parks and greenspace and identifies gaps in park access for 14,000 communities across the United States. Additional health, climate and demographic data layers are available for each community and “heat risk priority zones” are identified using TPL’s national urban heat island data. Please contact Brendan Shane (brendan.shane@tpl.org) at Trust for Public Land for more information.

**CityHealth**, an initiative of the de Beaumont Foundation and Kaiser Permanente, advances a package of evidence-based policy solutions that will help millions of people live longer, better lives in vibrant, prosperous communities. The version 2.0 policy package includes climate-related measures for complete streets and greenspace. Ratings for the 75 largest cities in the U.S. were released in December 2022.

EyeSustain is a global coalition of eye societies and their members, collaborating to make ophthalmic care and surgery more sustainable. It is co-sponsored by the American Society of Cataract & Refractive Surgery (ASCRS), the American Academy of Ophthalmology (AAO) and the European Society of Cataract & Refractive Surgery (ESCRS). More than 20 additional global ophthalmology organizations are member societies. ASCRS and AAO are members of the MSCCH.

Visit https://eyesustain.org/ and https://eyesustain.org/about to learn more.

**Our Mission**
- Engage, network, and educate our global ophthalmic community about more sustainable practices
- Collaborate with industry to reduce our carbon footprint and surgical waste
- Support research and innovative solutions that reduce ophthalmology’s environmental impact
- Collaborate with other medical specialties to reduce the carbon footprint of our healthcare system
- Support advocacy and education about the public health impact of climate change
Climate for Health is a national initiative led by a diverse network of health leaders from across the health sector representing key health care, public health, clinical, and medical institutions and associations. Founded by ecoAmerica, Climate for Health offers tools, resources, and communications to demonstrate visible climate leadership, inspiring and empowering health leaders to speak about, act on and advocate for climate solutions.

ClimateRx is a groundbreaking tool to support health professionals in making climate action part of their everyday work. Based on the successful Vot-ER program, the ClimateRx badge offers a non-interruptive, non-confrontational avenue for engaging patients, colleagues, and community members on the health impacts of climate change and actions they can take now.

Citizens’ Climate Lobby is a nonprofit, nonpartisan, grassroots advocacy organization focused on national policies to address climate change. We train our volunteers to become effective citizen lobbyists who work directly with their members of Congress to get climate laws passed. With 400 volunteer chapters across 50 states, we’ve been building the good relationships we need to help bridge the political divide and move solutions forward.

Learn more here.
Environmental Health Inequities: A Social Work Perspective

It is important for health professionals, including social workers, to develop a deep understanding about the ways in which the environment and individual health outcomes are interconnected. This document describes the connection between human health and features of the environment including weather, air, and food. It highlights efforts within the social work profession to bring environmental health issues to the forefront and to advance practices and policies that are beneficial to people, communities, and the natural environment.

The Yale Center on Climate Change and Health utilizes research, education, and public health practice to help safeguard the health of human populations from adverse impacts of climate change and from human activities that cause climate change. Our 18-week online Climate Change and Health Certificate program for working professionals is one of our signature programs. We are accepting applications here for our next offering, which is scheduled to begin in April.
This report uses first-person accounts and a novel analysis of publicly-available enforcement data to assess compliance with California's outdoor heat stress standard. The lessons learned can help inform occupational health and safety agencies across the country as they develop better protections for workers exposed to increasingly deadly heat.

Pediatric Associates of Alexandria provides comprehensive health care for children from birth through young adulthood. Since 1955, we have been recognized for experience, equity and excellence. Pediatric Associates is committed to providing the highest quality pediatric medical care that families can trust for the physical and psychological health of their children. Our team works outside the walls of our office to support the broader foundation of health and wellness in our region. Complete care for children requires support and generosity towards our community resources, opportunities, and environment.

Visit website here.
About the American College of Physicians

The American College of Physicians is the largest medical specialty organization in the United States with members in more than 145 countries worldwide. ACP membership includes 160,000 internal medicine physicians, related subspecialists, and medical students. Internal medicine physicians are specialists who apply scientific knowledge and clinical expertise to the diagnosis, treatment, and compassionate care of adults across the spectrum from health to complex illness.

Physicians can play a substantial role in addressing climate change. ACP has resources and information to help physicians learn about how climate change affects human health and what can be done to reduce energy use and greenhouse gas emissions in physician practices.

Follow ACP on Twitter, Facebook, and Instagram

See ACP's Climate Change and Health toolkit and the Environmental Health policy paper.

My Green Doctor is the world’s most widely-used environmental sustainability and climate change practice management program for clinics, offices, and outpatient centers. Practices save money with environmental sustainability and create healthier communities by sharing wise choices with patients. Please register at MyGreenDoctor.org or MyGreenDoctor.es (si, en Espanol) and watch the 'Three Minute Video' to learn how easy it is for practices and professional societies to "go green!"
Annual Meeting Program Guide
Agenda
Speaker bios
Resources and more!
https://tinyurl.com/mscchprogram
Please Amplify!

Please use #ClimateHealth2023 to share your learning & comments on social media.

(bonus points if you take a selfie of yourself attending the meeting!)

Tag @docsforclimate

Questions: Please enter questions into the chat box in the bottom-right. If chat box doesn’t appear, click chat bubble at bottom of screen.
Welcome!

Lisa Patel, MD, MESc, FAAP
Executive Director
Medical Society Consortium on Climate and Health
## Agenda for Today

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30-2PM</td>
<td>Welcome and Introduction to Meeting</td>
</tr>
<tr>
<td>2-3PM</td>
<td>Strategies for Climate and Health Advocacy in the Current Landscape</td>
</tr>
<tr>
<td>3-3:20PM</td>
<td>Coffee and cookie break</td>
</tr>
<tr>
<td>3:20-4PM</td>
<td>State of the Air</td>
</tr>
<tr>
<td>4:10-5PM</td>
<td>Decarbonizing the Health Sector</td>
</tr>
<tr>
<td>5:10-6PM</td>
<td>CHEF Fellowship Capstone Projects</td>
</tr>
<tr>
<td>6-7:30PM</td>
<td>Networking and Opening Address with Dr. Jalone White-Newsome</td>
</tr>
</tbody>
</table>
Networking & Opening Address (6-8 pm)

The Role of Advocates in Climate, Health, and Equity

Dr. Jalonne L. White-Newsome
Senior Director for Environmental Justice,
The White House Council on Environmental Quality
Be a Climate Communications Champion: Strengthening Your Voice on Climate Change, Health and Equity

Are you interested in learning how to communicate about the intersection of climate change and health most effectively? This 5-part training series will build your confidence and skills as a public voice to change hearts and minds.

Join us and our communications partner, Burness, for the following workshops:

• Communications 101: How to Make the Case About Climate Change, Health & Equity
• Best Practices for Working with the Media
• Weighing in on Policy: How to Testify and Provide Public Comment
• Weighing in on the News: Writing Op-eds and Letters to the Editor
• Social Media: Getting Started and Being Strategic
• Rules of the Road for Engaging with Policymakers

Dates and registration details to come. Scan the QR code to sign up for more information about the trainings. Questions? Email ConsortiumMedia@burness.com
2023 Hybrid Annual Meeting

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Johnson & Johnson

GOLD SPONSORS

Gordon and Betty Moore Foundation
American Lung Association
Climate and Health Program

GREEN SPONSORS

APHA
Research America
Trust for Public Land
EyeSustain
Climate for Health

Steve Schroeder, MD
Housekeeping

- Program Guide with the agenda and all the bios are available under the Resources tab on the 2022 annual meeting page found on our website (www.docsforclimate.org)

- The hashtag for this meeting is #ClimateHealth2023. If you have questions during a session, please place those in the chat. Several sessions will have time for questions.

- If you are having difficulties with any aspect of the meeting, you can send a question to info@climateconsortium.org There will be someone there who can answer your question promptly.
Please Amplify!

Please use #ClimateHealth2023 to share your learning & comments on social media.

(bonus points if you take a selfie of yourself attending the meeting!)

Tag @docsforclimate

Questions: Please enter questions into the chat box in the bottom-right. If chat box doesn’t appear, click chat bubble at bottom of screen.
Welcome

Ed Maibach, PhD, MPH
Director, Distinguished University Professor
Center for Climate Change Communication
George Mason University
Evidence-based guidance for effective climate and health education campaigns:

Simple clear messages, repeated often, by a variety of trusted and caring voices.

Americans, especially conservative Americans, trust their primary care doctors as a source of information about global warming.

<table>
<thead>
<tr>
<th>Rank</th>
<th>All Registered Voters</th>
<th>Liberal Democrats</th>
<th>Moderate/Conservative Democrats</th>
<th>Liberal/Moderate Republicans</th>
<th>Conservative Republicans</th>
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<td>1</td>
<td>NASA</td>
<td>Climate scientists</td>
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<td>NASA</td>
<td>Family &amp; friends</td>
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<td>Environmental organizations</td>
<td>EPA</td>
<td>Family &amp; friends</td>
<td>The Fox News Channel</td>
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<td>Environmental organizations</td>
<td>NASA</td>
<td>Leaders in your religious faith</td>
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<td>4</td>
<td>Your primary care doctor</td>
<td>Teachers</td>
<td>Television weather reporters</td>
<td>American Medical Association</td>
<td>Your primary care doctor</td>
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<td>5</td>
<td>EPA</td>
<td>National Public Radio (NPR)</td>
<td>Teachers</td>
<td>American Medical Association</td>
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<td>President Biden</td>
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<td>Your local newspaper</td>
</tr>
<tr>
<td>8</td>
<td>Teachers</td>
<td>National network news</td>
<td>Your primary care doctor</td>
<td>American Medical Association</td>
<td>Your local newspaper</td>
</tr>
<tr>
<td>9</td>
<td>American Medical Association</td>
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<td>Teachers</td>
</tr>
<tr>
<td>10</td>
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<td>National public radio (NPR)</td>
<td>Your local newspaper</td>
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<td>CNN</td>
<td>Family &amp; friends</td>
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</tr>
<tr>
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<td>MSNBC</td>
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<td>Teachers</td>
<td>Your Congressperson</td>
</tr>
<tr>
<td>15</td>
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<td>Your Congressperson</td>
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</tr>
<tr>
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How much do you trust or distrust the following as a source of information about global warming?

April 2022
Reading brief statements about the eight health-harming pathways of climate change...

- Air pollution
- Extreme heat
- Extreme weather
- Vector-borne illness
- Water-borne illness
- Food-borne illness
- Hunger and malnutrition
- Mental health harms

…and who is most likely to be harmed...

- Babies, children, pregnant women
- Seniors, people with certain chronic illnesses
- People in low-income & communities of color
- Outdoor workers

…and increases people’s cognitive and affective engagement with the issue, especially moderates and moderate conservatives.

Report source: Medical Society Consortium on Climate & Health (2017)
Five policy pathways to improve our climate and our health:

#1: Use clean, renewable energy and reduce energy waste
#2: Favor climate-smart foods, farms, and food systems
#3: Support clean and active transportation options
#4: Improve our buildings and homes
#5: Improve our community environments

The climate benefits of these policies take years to accrue, in small measures worldwide.

But the health benefits accrue almost immediately and primarily locally in the communities that take the actions.
Effective climate/health messages:

1. **Show health impacts**
   Top three: air pollution; food-borne diseases; extreme weather

2. **Identify policy solutions**
   Top two: clean energy; and improved community design

3. **Affirm helpful social norms**
   "Most Americans agree that we want healthy communities and a healthy climate, [and many of us/but not enough of us] are taking action"

All three types of information increase engagement, but solutions information has the most impact.

This is equally true for conservatives as for liberals.

Source: Kotcher et al (2021) Journal of Climate Change and Health
Calling out opponents to climate action further strengthens the climate/health narrative

Which opponents?

- Fossil fuel CEOs and their lobbyists
- Some politicians
- Fossil fuel CEOs and their lobbyists, and the politicians who are in their pockets*

What it accomplishes, and with whom?

- It significantly strengthens policy support and the intention to advocate
- It is most effective with Republicans and Independents, thus providing further evidence of the depolarizing effect of the climate/health narrative

* Most effective treatment condition
Source: Kotcher et al (2023) Manuscript under development
Theory of Change

Our Goal
Implementation of equitable climate solutions that protect and promote health.

Harnessing the power of nature, technology, & collaboration

Policy Makers
Local, State, & Federal

Public
Voters concerned about climate change

Members, States, Affiliates, & Advocates

Organize • Empower • Amplify • Mobilize

Health Voices
Trusted voices of health professionals are effective at conveying the message that climate change is real, is harming our health now, and climate solutions will benefit health.
ECOLOGICAL DETERMINANTS OF HEALTH

- Health Care and Quality
- Neighborhood and Built Environment
- Social and Community Context
- Economic Stability
- Education Access and Quality
Burning fossil fuels profoundly harms human health

Childhood Morbidity:
- Pregnancy: Low birth weight, HBP, stillbirth, preterm birth
- Neuro-development: ADHD, reduced IQ, autism
- Respiratory: asthma, emphysema, COPD, chronic bronchitis

Adult Morbidity:
- Respiratory: asthma, emphysema, COPD, chronic bronchitis
- Cardiovascular diseases: increased MI/stroke risk, reduced HDL
- Cancer: breast, lung
- Neuro-degeneration: Alzheimer’s and other dementias, Parkinson’s disease

Mortality:
- **Fossil Fuels**
  - 8.7 MILLION †
  - globally per year in 2018

Source: K. Vohra 2021

Source: NIEHS 2022
Global mortality from fossil fuel air pollution exceeds that from tobacco use.

- **Fossil Fuels**: 8.7 million † globally per year in 2018
- **Tobacco**: 7.69 million † globally per year in 2019

Source: K. Vohra 2021

Source: WHO 2021
Our climate and our health have a common, powerful enemy: fossil fuels.
Welcome

Garfield Clunie, MD
National Medical Association, President
The meeting will resume at 03:20PM ET

Next up... *State of the Air with American Lung Association*
State of the Air By American Lung Association

3:20-4 pm ET

Laura Kate Bender
National Assistant Vice President
Healthy Air at American Lung Association
Data for Air Quality Advocacy: “State of the Air” and other reports

Laura Kate Bender
National Associate Vice President for Healthy Air, American Lung Association
Improving quality of life for those with lung disease

**Air pollution** can harm children and adults in many ways

**Respiratory**
- Wheezing and coughing
- Shortness of breath
- Asthma attacks
- Worsening COPD
- Lung cancer

**Other**
- Premature death
- Susceptibility to infections
- Heart attacks and strokes
- Impaired cognitive functioning
- Metabolic disorders
- Preterm births and low birth weight
Annual “State of the Air” Report

www.Lung.org/SOTA

- Puts air pollution into everyday language
- Gives the public local information
- Focuses attention on ozone and particle pollution
- Grades counties with monitors
- Ranks 25 metro areas with most and least pollution for 3 measures
- Tracks trends in air pollution levels
- Release date: April 19, 2023
Nearly 9 million more people were impacted by deadly particle pollution than reported last year.

There were more days with “very unhealthy” and “hazardous” air quality than ever before in the history of this report.

Over 137 million people live with unhealthy levels of air pollution.

The burden of living with polluted air is not equally shared. People of color are significantly more likely to be exposed to unhealthy levels of particle pollution and ozone.
The Clean Air Act is working!

- Reductions in emissions of particle pollution and of particle and ozone precursors from vehicles, industry and power plants.
- Retirement of fleets of old, dirty diesel trucks, buses, trains, barges, tractors and heavy equipment
- *But*, increased wildfires and weather patterns have increased some pollutant levels
- Over its history, this bipartisan landmark public health law has saved millions of lives and trillions of dollars!
What's the State of YOUR Air?

For 21 years, the American Lung Association has analyzed data from official air quality monitors to compile the State of the Air report. The more you learn about the air you breathe, the more you can protect your health and take steps to make the air cleaner and healthier.

Select your location to view data by state, county, and metropolitan statistical areas.
How to find the grades

• In the top banner of the home page, select a state, or type in a zip code.
• Clicking on a state gets you to all the counties in that state, including those without monitors.
• Typing in the ZIP Code takes you directly to that county.
How we grade

What do the A–F grades mean?

• **A** = 0 days with unhealthy levels over 3 years
• **B** = 1 to 2 unhealthy days
• **C** = 3 to 6 unhealthy days
• **D** = 7 to 9 unhealthy days
• **F** = 9 or more unhealthy days
No Monitors = No Data = No Grades

• **No monitors = no grades.** Fewer than 1/3 of counties have monitors
  – Not all counties with monitors have both ozone & particle monitors

• **EPA & states decide which counties get monitors—not us**

• **No data = no grades.** Some counties with monitors have problems reporting data
How we rank cities

- We have **separate rankings** for short-term particles, year-round particles and ozone.
- We rank cities by their most polluted county.
  - Because cities are entire metropolitan areas, they usually have more than one county.
  - We rank them by weighted average or design value of the **most polluted county** in the metropolitan area.
- We follow Office of Management and Budget definitions of cities.
  - Metropolitan Statistical Area
  - Combined Statistical Area (may combine more than one “city”)
Deadly particle pollution continues to rise

- An additional 8.9 million people are living with dangerous spikes in short-term particle pollution compared to last year's report.
- 17 of the 25 cities most polluted by short-term levels had more high particle days in 2018-2020.
- 8 cities hit their highest number on record.
Worst Levels of Daily Particle Pollution Increasing Rapidly

Legend
- Very Unhealthy Purple Days
- Hazardous Maroon Days

Number of Days

"State of the Air" Report Year

American Lung Association.
Year-round particle pollution

- 18 of the 25 cities most polluted by particles year-round had increased year-round levels
- 4 of them in CA, OR and WA saw their worst levels ever
- 6 cities had improved annual levels in 2018-2020
- Pittsburgh and Detroit had the lowest levels ever
Ozone levels showed improvement

• More than 122 million people in 156 counties live with unhealthy levels of ozone
• Overall, the 25 most ozone-polluted cities in the U.S. experienced fewer bad air days on average
• 6 of the 25 worst cities for ozone saw their lowest levels ever
• None of them had record high levels

3 out of every 8 Americans live in counties with F grades for ozone smog
“Zeroing in on Healthy Air” Report: Lung.org/EV

Models:

- Full Zero-Emission Vehicle Sales in the United States
  - 2035, 100% Passenger Vehicle Sales
  - 2040, 100% Medium- and Heavy-Duty Vehicle Sales

- National Power Grid
  - 2035, 100% Non-Combustion Electricity Generation
$1.2+ Trillion

Public Health Benefits

• Cumulative Public Health Benefits
• 2020-2050 Timescale
• National-scale Benefits

• 110,000 Premature Deaths Avoided
• 2.7 Million Asthma Attacks Avoided
• 13.4 Million Lost Work Days Avoided
$1.7+ Trillion
Global Climate Benefits

- Cumulative Climate Benefits
- Global-Scale Benefits
- 2020-2050

- Social Cost of Carbon
- 24.2 Billion Metric Tonnes GHG avoided
Emission Reductions by Vehicle Type

**Light Duty Emission Reductions (2050)**
- NO\textsubscript{x} – 92%
- PM\textsubscript{2.5} – 58%
- GHG – 94%

**Heavy Duty Emission Reductions (2050)**
- NO\textsubscript{x} – 92%
- PM\textsubscript{2.5} – 68%
- GHG – 92%
Emission Reductions by Vehicle Type

Light Duty Vehicle
Share of 2050 On-Road GHG Reduction
63%

Heavy Duty Vehicle
Share of 2050 On-Road NO\textsubscript{x} Reduction
89%
Delivering Clean Air
Health Benefits of Zero-Emission Trucks and Electricity
A Zeroing In on Healthy Air Report

Lung.org/EV
Heavy-duty vehicles represent the dominant source of on-road emissions, but only a tiny fraction of the on-road population.

Source: American Lung Association Zeroing in On Healthy Air 2022
The HEI panel found a high level of confidence that strong connections exist between traffic-related air pollution and early death due to cardiovascular diseases. A strong link was also found with lung cancer mortality, asthma onset in children and adults, and acute lower respiratory infections in children.
Communities near high-traffic roadways experience higher rates of numerous adverse health effects.

72 million people live near truck freight routes in America.

Residents of these communities are more likely to be people of color and have lower incomes.

Source: EPA Transportation and Environmental Justice 2022
$735 Billion Public Health Benefits

- Cumulative Public Health Benefits
- 2020-2050 Timescale
- National-scale Benefits based on Counties with Major Truck Routes

- 66,800 Premature Deaths Avoided
- 1.75 Million Asthma Attacks Avoided
- 8.5 Million Lost Work Days Avoided
Advocacy Opportunities

• Use local data in any outreach to decision-makers – air quality grades, populations at risk, or state/metro-level benefits from EV reports

• Each report has policy recommendations, including local, state and federal

• “State of the Air” also includes recommendations for individual actions
Want more information?

Contact me at Laura.Bender@Lung.org

Visit our Health Professionals for Clean Air and Climate Action page at Lung.org/ClimateChangesHealth
Take a break

The meeting will resume at 4:10 pm ET

Next up… Decarbonization of the health care sector
Decarbonization of the Health Care Sector

4:10-5 pm ET

Moderator
Emmie Mediate
U.S. Climate & Health Program Director
Health Care Without Harm

Katie Lichter, MD
Resident Physician and Climate Health Fellow
University of California, San Francisco's (UCSF), Department of Radiation Oncology

Brian Chesebro, MD
Anesthesiologist
Oregon Anesthesiology Group at Providence Portland Medical Center

Joe McCannon
U.S. Department of Health and Human Services
Office of Climate Change and Health Equity (OCCHE)
Decarbonization of the Healthcare Sector

as a resident & trainee

Katie Lichter, MD, MPH
Resident Physician
Climate Health Fellow
Principal Investigator, GreenHealth Lab
University of California San Francisco
1. How does climate change impact cancer care?

2. How does cancer care impact climate change?

3. What can the medical/oncology community do today?

Mitigation

How can we organize to inspire change?

Adaptation

Mitigation

Advocacy

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Department → Institution → Specialty → Healthcare Community
ADAPTATION

Missed Treatment Visits
1. Waste Audits

2. Life Cycle Assessments

3. Conference Emissions
Six Minute Waste Audit: A resident-led QI initiative to reduce medical waste

1. Student Leads/Auditors
2. Supplies
3. Document Procedural Setup
4. Weigh RBW & non-RBW waste
5. Photograph RBW & non-RBW waste
6. Document & photograph unused items

Know Where To Throw
Biohazard Red Bag Waste
- Fluid Blood
- Hemovacs
- Chest Drainage Units
- Suction Conisters
- Bags and IV Tubing

These Don’t Go In Red Bag
- Sharps
- Medication
- Garbage
- Hazardous Waste

Department → Institution → Specialty → Healthcare Community

Biohazard
- Baseline
- Average Biohazard
- Target: 30% Reduction

Waste Audit Toolkit

Month 1: Getting Started
- Phase 1: Background, Team Assembly, Preparing for the Audit
- Phase 2: Data Collection
- Phase 3: Data Analysis
- Simple Waste Audit Overview and Toolkit

Climate Resources for Health Education
Where are the emission Hotspots?

Department → Institution → Specialty → Healthcare Community

What is the reduction with UberGreen?

- All Electric (UberGreen): 1,227,770 g of CO2
- Gasoline (UberX): 5,712,542 g of CO2
  - Reduced by 79%
- 6,200,000 grams of CO2e to 1,332,537 grams of CO2e
  - A ~4mil difference
### Virtual ARS Conference 2021

CO2 emission equivalence of 102.4 passenger vehicles driven per year spared by virtual format.

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**Networking without Harm**

- Emissions Calculator
- References
- About Us

### Calculate your emissions

#### Conference Details

<table>
<thead>
<tr>
<th>Format</th>
<th>Number of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-person + host or attend</td>
<td>3</td>
</tr>
<tr>
<td>In-person + staying in house or with friend</td>
<td>3</td>
</tr>
<tr>
<td>Virtual</td>
<td></td>
</tr>
</tbody>
</table>

#### Transportation

- **Emissions**: Your estimated waste is 0.76 metric tons of CO2.
- **Distance**: A nonstop flight to the conference is ~1842 miles.
- **Actions**: Virtual attendance would spare 0.76 metric tons of CO2.

#### 2... offset your emissions

Select lifestyle changes you could make for 1 year to see potential impacts on your emissions.

- Go vegetarian
- Reduce
- Reduce your food waste to zero
- Eat local food only
- Use car free
- Source household energy from renewables
- Hang clothing to dry

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ADVOCACY

GreenHealth Lab

ASTRO
Climate Task Force
March 2023

ARRO
CLIMATE HEALTH, EQUITY, AND SUSTAINABILITY
Clinical decarbonization:

What can you do about it?

Brian Chesebro MD
Medical director, environmental stewardship
Providence Health
Clinicians are **engaged**.

- recognize threat of climate change on human health *today*
- motivated to take action

Clinicians have **barriers** to action.

- lack of time
- lack of knowledge

## Clinician - Stewardship Matrix

<table>
<thead>
<tr>
<th></th>
<th>MITIGATION</th>
<th>RESILIENCE</th>
<th>ADVOCACY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operations / Best Practice</strong></td>
<td>Volatile anesthesia selection</td>
<td>Vulnerability assessments</td>
<td>External- societal decarbonization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Internal- accountability</td>
</tr>
<tr>
<td><strong>Research / Innovation</strong></td>
<td>Nitrous oxide</td>
<td>Perioperative optimization</td>
<td>Community partnerships</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medical societies</td>
</tr>
<tr>
<td><strong>Education / Engagement</strong></td>
<td></td>
<td></td>
<td>Critical for progress across all categories.</td>
</tr>
</tbody>
</table>
Decarbonization Value Analysis

QUALITY
- safety
- efficacy
- efficiency
- compliant
- resilient
- patient-centered
- equity

COST
- financial
- environmental
- social
OCCHE Vision for Climate Health and Equity

In the next five years, communities and the healthcare organizations that serve them are transformed…

• Every community and care provider in every U.S. geography is prepared for both disruptive and chronic climate impacts on its most vulnerable populations.

• Every healthcare institution is prepared for long-term operation in the face of climate catastrophes.

• Every hospital and health system in the United States is publicly tracking its greenhouse gas emissions and is on a path to net zero by tackling Scope 1, Scope 2 and Scope 3 emissions.

• Public sector investments to reduce greenhouse gas emissions and fossil fuel dependence address improvement of health and health equity.

• All HHS Operating Divisions and other relevant agencies are contributing toward these goals…
AUGUST 17, 2022

FACT SHEET: Inflation Reduction Act Advances Environmental Justice

Most Significant Climate Legislation in U.S. History Delivers for Overburdened Communities

By signing the Inflation Reduction Act, President Biden is delivering on his promise to build an economy that works for working families, including communities that have been underinvested and underserved for too long. President Biden and Congressional Democrats kept their word.
Take a break

The meeting will resume at 5:10 pm ET
Next up… CHEF Fellows Capstone Projects
Climate and Health Equity Fellows Presentation

5:10-6 pm ET

Moderator
Mark Mitchell, MD, MPH, FACPM
Associate Professor of Climate Change, Energy, & Environmental Health Equity at George Mason University

Yvonne Collins, MD
Gynecologic Oncologist
Chief Medical Officer of CountyCare within Cook County Health Hospitals System

Francis Samonte, MD, PhD
Pediatric and Adult Neurologist/Neuroscientist
Boston University at the Department of Environmental Health

Rene Settle-Robinson, MD
2022 Graduate of the Climate and Health Equity Fellowship

Shaneeta Johnson, MD
Professor and Interim Chair of Surgery
Chief of Minimally Invasive, Robotic, and Bariatric Surgery
Climate Change and Health Equity Fellowship

Shaneeta Johnson MD MBA FACS FASMBS
Deputy Fellowship Director, CHEF
Professor of Surgery
Morehouse School of Medicine
Capstone Project: White Paper NMA Survey

A Survey of African American Physicians’ Views on Climate Change, Health, and Equity in the Southeastern United States

• Physicians in the National Medical Association Southeast region surveyed on the impact of climate

• Team: Dr. Shaneeta Johnson, Dr. Mark Mitchell, Dr. Kimberly Williams, Kate Hoppe, Dr. Kevin Carroll, John Kotcher

• Manuscript under journal peer review

• Key Findings:

  97% physicians reported that climate change is important to them

  91% physicians felt that climate change would impact them

  94% physicians are worried about climate change impacts

  36% physicians cite lack of knowledge regarding climate change
Climate Change and Health Equity Fellowship Initiatives

NMA Resolution proposed on Climate Change and Health Equity and adopted

National Academy of Medicine Taskforce: Decarbonizing the US Health Sector

Johnson and Johnson videos produced for New York Climate week

Speaking engagements:
- NMA Community Health
- Countdown to Lancet 2021 US Report
- George Mason University
• Why?
  • Diversify the climate and health movement
  • Increase representation of diverse voices in climate and health
  • Engage in policy and decision-making processes
  • Center health equity within climate solutions to achieve improved solutions that provide the most significant benefit for sustained lengths of time, motivate people and communities to act on climate change, and build the political will and public support for action.
  • Inspire others to recognize the impact of climate change on their communities and that climate solutions can be health, equity, and antiracism solutions
CHEF Alumni Engagement Network (CAEN)

Who?
- Annual cohorts
- MCCCH

What?
- Advocacy
  - Collaborative opportunities
  - Legislative meetings
  - Speaking engagements
  - Op-eds
- Networking
  - Professional network
  - Community voices (EJ voices)
- Education
  - Professional
    - Continuing education
    - Health professional education
  - Community Educations
    - Articles, Toolkits, Community events
CHEF Alumni Engagement Network (CAEN)

When?
- Kick off at Annual Meeting

How?
- Email blasts (MCCCH Newsletter)
- Google network
- Repository of activity
  - Social media
  - Speaking engagements
  - Publications
Dr. Rene’ Faith Settle-Robinson

Podiatric Surgeon
Outreach Community Health Center
Milwaukee, Wisconsin

Climate and Health Equity Fellow, 2022
Medical Society Consortium on Climate and Health
George Mason University

Capstone Project 2022
Feet, Climate Change and Equity

- Vulnerable to extremes in temperature
- Marginalized communities
  - Experience greater extremes in temperature
  - Have less finances for proper shoe gear
  - Are more vulnerable to climate change
- Environmental injustice
  - Creates health disparities
  - Causes despair in our environmental justice communities
- Structural racism is in constant battle with the innate ability of our community to survive and thrive
Capstone Project:
Climate Change that Impacts Podiatry

- National Medical Association Convention
  - Lecture on Climate Change and It’s Impact on Podiatry
    - Podiatric Medicine and Surgery Section, Summer, 2022
  - Resolution adopted by House of Delegates advocating for Climate education for NMA Physicians

- AUCD Convention
  - Lecture on the impact of Climate on People with Disabilities, November, 2022

- Journal of the National Medical Association
  - Article on Climate Change and It’s Impact on Podiatry to be published
Thank you!

For more information, please contact Dr. Rene’ Settle-Robinson at settlerobinson@gmail.com
The Intersection of Climate, Health, Equity and Workforce

Yvonne Collins, MD, FACOG
Cook County Health
CMO, CountyCare
Gynecologic Oncologist
2022 Climate, Health and Equity Fellow
Social determinants of health are the non-medical factors that affect health outcomes.

POVERTY
INCOME
UNEMPLOYMENT

The health disparities are worsened with climate change.

The vulnerable populations do not have access to green jobs.

Climate changes can improve public health and advance health equity.

GOAL: Workforce development can be an effective tool to mitigate inequities of climate change health impacts on disproportionately impacted communities.
Climate, Health and Equity
Health Disparities

Centers for Disease Control

- Hypertension: 33% vs 22%
- Diabetes: 10% vs 6%
- Stroke
  - 2% vs 1% aged 35-49
  - 7% vs 4% aged 50-64

SOCIAL DETERMINANTS OF HEALTH

- Unemployment
- Poverty
- Inactive lifestyle
- Access to care
WEALTH GAP

Figure 1. Household net worth and income, by race and ethnicity

Source: Survey of Consumer Finances
GREEN JOBS

- Food industry worker
- Agricultural worker
- Green construction worker
- Park Worker
- Eco hospitality Jobs
- Electrical vehicle sales and service
- Waste management
- Landscaping
- Green Energy Apprenticeship
- Environmental Technician
An estimated 875,000 Americans work in “green jobs” – jobs to do with the environment, sustainability, renewable energy, conservation, and recycling.

Green jobs are projected to grow 8.6% and add 114,300 jobs over the next decade, according to the Bureau of Labor Statistics.

The median salary in a green job is $76,530/year – 31% more than the national median salary for the U.S. workforce ($58,260).

IL relative to the National Average is -22.8%
### High-Paying Environmental Jobs Without a College Degree

<table>
<thead>
<tr>
<th>Job</th>
<th>Average Salary</th>
<th>Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management Manager</td>
<td>$114,690</td>
<td>8%</td>
</tr>
<tr>
<td>Environmental Scientist</td>
<td>$73,230</td>
<td>8%</td>
</tr>
<tr>
<td>Occupational Health and Safety Specialist</td>
<td>$72,530</td>
<td>7%</td>
</tr>
<tr>
<td>Landscape Architect</td>
<td>$70,630</td>
<td>0%</td>
</tr>
<tr>
<td>Urban Farmer or Agricultural Manager</td>
<td>$68,090</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Natural Resource Scientist</td>
<td>$64,010</td>
<td>7%</td>
</tr>
<tr>
<td>Environmental Test Technician</td>
<td>$51,630</td>
<td>8%</td>
</tr>
<tr>
<td>Arborist</td>
<td>$44,040</td>
<td>7%</td>
</tr>
<tr>
<td>Green Construction Worker</td>
<td>$37,080</td>
<td>7%</td>
</tr>
<tr>
<td>Forest and Conservation Worker</td>
<td>$30,640</td>
<td>-8%</td>
</tr>
</tbody>
</table>
The goal of the BLS green jobs initiative is to develop information on:

1. The wages of the workers in these jobs.
2. The number of and trend over time in green jobs.
3. The industrial, occupational, and geographic distribution of the jobs.
<table>
<thead>
<tr>
<th>Key Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Develop a working model for addressing unemployment in communities most impacted by climate change</strong></td>
</tr>
<tr>
<td>Identification of the opportunity</td>
</tr>
<tr>
<td>Documentation of the resources</td>
</tr>
<tr>
<td>Discussion with partners</td>
</tr>
<tr>
<td>Develop strategy for the program with co branding</td>
</tr>
<tr>
<td>Implementation plan</td>
</tr>
<tr>
<td>National Expansion and Publication</td>
</tr>
</tbody>
</table>
**SINCE CHEF**

- Multiple lectures
- Recruitment of like-minded clinicians
- Appointment to the Medical District sustainability committee
- Development of Climate Change Course for trainees
- Initiation of Decarbonization Committee for facility
- Continued work with Illinois Clinicians for Climate Action
THANK YOU !!!

Yvonne Collins, MD
yvonne.collins@cookcountyhhs.org
312-466-2907
Climate Health on Persons with Disabilities

Francis Samonte, M.D., Ph.D.

- Cognitive Behavioral Scientist, Boston University School of Public Health, Department of Environmental Health
Problem/Issues

- The adverse impacts of climate change on individuals with multiple vulnerability factors require adequate measures.
- Persons with disabilities are often among those most adversely affected by climate change.
- Current health policy, planning, and resiliency measures are lacking.
- Significant gap in research based initiatives in people with disability and climate change effects exist.
- Physicians require up-to-date information in dealing with climate health and disability issues.
Key Actions

● Contributed commentary to Disabled World on climate health planning and resiliency.
● Supported physician call to action to address health care disparity thru local state legislator and city council members to help them understand that climate change is a health equity issue, and to form relationships for ongoing advocacy.
● Advance the dialogue through education of physicians
  ○ 2022 Climate & Health Conference: Delaware Medical Society
  ○ 2022 Climate Health Equity: Georgia Medical Society
● AUCD (Association of University Centers on Disability) annual convention on emergency management in people with disability
● Collaboration, partnership between MSCCH and other institutions
Monday’s Agenda

**Education Track**

9:10-10:00 am: Climate Clinicians on Call

10:10-11:00 am: Advances by Medical Societies in Climate Education

11:10-12:00 pm: Opportunities for Advocacy with the EPA and Federal Agencies

12:00-1:15 pm: Keynotes: Transitioning Off Fossil Fuels Rapidly and Justly: The Path Ahead

1:15-2:00 pm: Break and Networking Fair

2:00-3:00 pm: State-Level Implementation of IIJA and IRA: Centering on Justice40

**Advocacy Track**

9:10-10:00 am: Climate Coaching: Tools to Build the Movement

10:10-11:00 am: Empowering Health Professionals to Confront Disinformation
### Monday’s Agenda (continued)

<table>
<thead>
<tr>
<th>Time</th>
<th>Education Track</th>
<th>Advocacy Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:10-4:00 pm</td>
<td>Innovations in Climate and Health Medical Education</td>
<td>Legislative Visits Training <em>(REQUIRED if participating in Capitol Hill visits on Tuesday)</em></td>
</tr>
<tr>
<td>4:10-5:00 pm</td>
<td>Climate Change and Maternal-Child Health: Impacts and Counseling for the Reproductive Landscape</td>
<td>Soapbox Hill Briefing <em>(REQUIRED if participating in Capitol Hill visits on Tuesday)</em></td>
</tr>
</tbody>
</table>

End of Monday Sessions
Networking & Opening Address

The Role of Advocates in Climate, Health, and Equity

Dr. Jalonee L. White-Newsome
Senior Director for Environmental Justice,
The White House Council on Environmental Quality
Thank you for attending the 2023 MSCCH Annual Meeting!