Climate Change and Health Equity: How HHS is making the connection

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Maricopa County identified a total of 425 heat-associated deaths occurring in 2022. This represents a twenty-five percent increase from last year.

In recent years, most deaths have been classified as heat-caused. This year, environmental heat was directly involved in the sequence of events causing death in more than half of all heat-associated death cases.
Houston, we have a problem

Climate Change and the HHS Mission

Climate change poses current and increasing threats to human health. As the climate continues to warm, the risks to human health will grow, exacerbating existing health threats and creating new public health challenges.

HHS is committed to taking actions across the whole department to protect the health and wellbeing of all people, especially those most vulnerable.
Climate change

Health risk

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

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

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
Impact of Climate Change on Physical, Mental, and Community Health

Medical and Physical Health
- Changes in fitness and activity level
- Heat-related illness
- Allergies
- Increased exposure to waterborne and vector-borne illness

Mental Health
- Stress, anxiety, depression, grief, sense of loss
- Strains on social relationships
- Substance abuse
- Post-traumatic stress disorder

Community Health
- Increased interpersonal aggression
- Increased violence and crime
- Increased social instability
- Decreased community cohesion

https://health2016.globalchange.gov/
1923, City of Richmond, Virginia – “Residential Security Map”

Source: Nelson, Winling, Marciano, Connolly, et al., Mapping Inequality
Formerly redlined areas have less tree cover today than areas that weren’t redlined.

They have more paved surfaces, like roads and parking lots, that absorb and radiate heat.
Housing policy, race, and air pollution

Source: Environmental Science & Technology Letters - By The New York Times
That adds to up to **higher summer temperatures** compared to the city average.

The Office of Climate Change and Health Equity (OCCHE)
New Office Within the Office of the Assistant Secretary for Health

- Assistant Secretary for Health
  - Principal Deputy Assistant Secretary for Health
  - Deputy Assistant Secretary for Health, Policy

  - Office of the Deputy Assistant Secretary for Health (Medicine & Science)
  - Office of Regional Health Operations

  - Office of the Surgeon General

  - Executive Office

  - Office of Climate Change and Health Equity
  - Office of Disease Prevention and Health Promotion
  - Office for Human Research Protections
  - Office of Infectious Disease and HIV/AIDS Policy

  - Office of Minority Health
  - Office of Population Affairs
  - Office of Research Integrity
  - Office on Woman’s Health
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…
The OCCHE “Hub”: Setting Strategy, Coordinating Action
How has OCCHE Approached its Mission So Far?

1. Set the foundation for climate change and environmental justice work across all of HHS
2. Articulate the vision by developing and sharing clear objectives
3. Develop supports for internal and external stakeholders
Setting the Foundation
White House/HHS Health Sector Climate Pledge

1. Reduce organizational emissions by 50% by 2030 and achieve net-zero by 2050, publicly accounting for progress on this goal.

2. Designate an executive-level lead for work on reducing emissions and conduct an inventory of Scope 3 (supply chain) emissions by the end of 2024.

3. Develop and release a climate resilience plan for continuous operations by the end of 2023, anticipating the needs of groups at disproportionate risk of climate-related harm.

June 30 White House Event
White House/HHS Health Sector Climate Pledge as of November 2023

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Pledge Organizations</td>
<td>133</td>
</tr>
<tr>
<td>Private-Sector Hospitals Represented</td>
<td>900</td>
</tr>
<tr>
<td>Health Centers</td>
<td>&gt;290</td>
</tr>
<tr>
<td>Hospitals in US (Combined Gov and Private-Sector)*</td>
<td>&gt;15%</td>
</tr>
<tr>
<td>Fortune 500 Organizations</td>
<td>7</td>
</tr>
<tr>
<td>Pharmaceutical Companies</td>
<td>7</td>
</tr>
</tbody>
</table>

*Including federal health systems, over 1,140 hospitals have made the Pledge commitments.
Articulating the Vision
The Short and the Long of it: the HHS CCHE Strategy

- **The Short**
  - 40 Accomplishments
  - 50 Actions planned for the next 1-2 years

- **The Long**
  - 8 pillar framework
  - Research to fill gaps in evidence base
  - Consensus development of indicators and measures of quality
  - Incorporating decarbonization and resilience in health sector technical assistance
  - Exploring authorities for policies for reporting and emissions reduction
Eight pillar framework for health sector transformation

- Revised Policy and Regulation
- Adequate Funding
- Workforce
- Enhanced Program and Practice
- Technical Assistance
- Data, Research, Measures
Health Care Sustainability Supports Health Care Resilience

Sustainable health care solutions include:
- Renewable energy
- Energy efficiency improvements
- Green transportation
- Decarbonized supply chain

Joint solutions include:
- Green energy (e.g. microgrids)
- Reduced energy use intensity
- Reusable medical devices
- Community-oriented planning

Resilient health care solutions include:
- Alternate sources of energy
- Building hardening
- Plan to receive patients from other providers
- Preparation for supply interruptions
Hospital Preparedness Program (HPP)

- >85% of nation’s acute care hospitals
- 326 Health Care Coalitions (HCC) across the nation
- Secondary facility types optional

Public Health Emergency Preparedness Program (PHEP)

- 62 recipients in 50 states, 4 cities and 8 territories
- Funds can be shared with local HD’s, tribes and tribe-serving organizations

MIND THE GAP!
Community Health Centers/FQHC’s, ambulatory care, residential facilities lack direct support for preparedness

CMS Emergency Preparedness Rule
Climate health resilience hub

Inputs

Community-identified needs. Ex:
- Adult education
- Counseling services
- Job training/placement
- Meal services
- After-school programming

Conveners, funders, advisors

• HUD Promise Zone, or State/Local Transformative Community Programs
• Technical assistance identifying, applying for, and braiding funding and resources
• Data-driven decision making

Emergency preparedness/services

• Mass testing/vaccination sites
• Cooling and clean air shelter
• Resource distribution point

Public health and medical services

Co-locate clinical services and public health services

State and local government & services

• Utilities prioritization/microgrid
• Social services
• Active transportation
• Housing/employment assistance

Outputs

Community

• Services and programming
• Communications
• Building and landscape
• Power systems
• Operations
• Social Capital and RESILIENCE

Slide credit: Michael Huff, Jason Wilken
Supporting Change
Support for Community Health Centers’ Climate Resilience

• HRSA National Training & Technical Assistance Partnerships
  ▪ Preparedness for Emergencies and Environmental Impacts on Health

• Workforce training
• Support for solar backup power & access to community solar
• Integrate protection from climate-related hazards in clinical care coordination to address SDOH
• Incorporate safety net health services in community climate resilience hubs
Resources for Decarbonization and Resilience

Compendium of Federal Resources for Health Sector Emissions Reduction and Resilience

This Compendium of Federal Resources features funding opportunities, tools, and supports from the federal government that can assist the health sector in the important work of climate resilience and greenhouse gas emission reduction. It is organized in six subsections that map to key steps in a health organization’s journey to meet the challenges of climate change. These steps align closely with the commitments of the White House-HEI Health Sector Climate Pledge.

Each subsection notes relevant tools and resources from the federal government that can assist a health sector organization in taking action. Resources are divided into the categories “General Guidance and Tools” and, where applicable, “Financial Resources, Funding Opportunities and In-Kind Supports.” In some cases, programs and policies are further divided by the population or community they are most applicable to. This compendium also notes relevant free resources from other organizations active in the space.

The Compendium includes programs and policies made possible by the landmark Inflation Reduction Act (IRA), which provides billions of dollars in incentives, grants, and loans for organizations to make significant investments in resilient infrastructure, renewable energy, and operational efficiency. A more complete guide to these opportunities—OCHHE’s Quickstart Guide to Leveraging the IRA for the Health Sector—is also available. Many of these programs and policies are or will be—explored more deeply in OCHHE’s webinar series on Acceleration HealthCare Sector Actions on Climate Change and Health Equity in the coming months.

Resources for Climate Resilience and Emissions Reduction

OCHHE has organized the resources that follow into six subsections corresponding to key actions organizations are likely to take in their work to address the challenges of climate change. These actions need not be followed in order. OCHHE also notes that while a resource may apply to multiple areas, each item has only been included once where it is considered most relevant.

1. Engaging the C-Suite and Board

These resources should help an organization’s leadership to become more familiar with the challenges of resilience and emissions reduction and opportunities for action.

General Guidance and Tools:

Clean Energy Economy: A Guidebook to The Inflation Reduction Act’s Investments in Clean Energy and Climate Action
Health Sector Resource Hub

The Office of Climate Change and Health Equity (OCCHE) Health Sector Resource Hub is a place where organizations committed to becoming more resilient and sustainable can find helpful resources and supports.

OCCHE envisions an American health sector that both: (1) adapts to increased crises and chronic stressors in service of its most vulnerable populations and (2) uses the best available evidence and technology to mitigate its own emissions. However, despite a growing recognition of the health problems associated with climate change and the need for action, many organizations – and particularly those serving the most at-risk communities – struggle to make investments in sustainability and resilience because of insufficient funding.

- Compendium of Federal Resources for the Health Sector
- Quickfinder for Leveraging the IRA for the Health Sector
- Accelerating Healthcare Sector Action Webinar Series
- Protecting Vulnerable Patient Populations from Climate Hazards: A Referral Guide for Health Professionals

The Resource Hub is designed to help the health sector understand what resources, tools, and informational materials are available to accelerate the important work of emissions reduction and climate resilience. It includes the Compendium of Federal Resources, which reviews the relevant programs and policies and maps them to key steps in a health organization’s journey to meet the challenges of climate change. These steps align closely with the commitments of the White House-HHS Health Sector Climate Pledge. One important tool featured in the Compendium is “Guidance for the Health Sector - PDF” on using the Environmental Protection Agency’s free benchmarking tool ENERGY STAR Portfolio Manager to track building-related energy and greenhouse gas (GHG)
Define & prioritize opportunities for energy efficiency, renewable energy, and climate resilience

Identify corresponding IRA programs that can support those initiatives

Learn in community with peer organizations to address specific challenges and share relevant case examples
Climate and Health Outlook

- 12 issues produced since May 2022
- Includes information on climate hazards:
  - Extreme Heat
  - Wildfire
  - Drought
  - Hurricane
  - Tickborne Illnesses
  - Pollen
  - Spring Flooding
This interactive map shows county-level forecasts for **heat, wildfire, and drought** in the U.S. in the current month, as well as county-level individual risk factors that may increase vulnerability to the impacts of these climate-related hazards. These social, environmental, and health indicators characterize an increased risk of negative health outcomes for individuals who have these risk factors and are exposed to relevant climate-related hazards.
Heat-Related EMS Activation Surveillance Dashboard
July 22, 2023 – August 4, 2023
Dashboard Updated On: August 7, 2023 (Updated Weekly)

Select Time Period
Previous 14 Days

Select Level of Geographic Detail
Countries

Select to View Specific State/District/Territory
All

Select Heat-Related Measure
Rate of Heat-Related EMS Activations

National Statistics

Average EMS Time to Patient
12.3 minutes  % Change -5.9%

Number of Heat-Related EMS Activations
4,044  % Change -17.9%

Rate of Heat-Related EMS Activations per 100K Population
1.5  % Change -17.9%

Number of Heat-Related Deaths Among EMS Activations
15.0  % Change -31.8%

Patients Transported to a Medical Facility
64.5%  % Change -35.5%

No/Limited Data Available

Zero or Much Lower Than Average

Lower than Average

Near National Average

Higher than Average

Much Higher than Average

National Rate of Heat-Related EMS Activations

Top Jurisdictions
Rate of Heat-Related EMS Activations
Arkansas
Nevada
Kansas
South Dakota
District of Columbia
Nebraska
Alabama
Florida
New Mexico
Georgia

Top Counties
Rate of Heat-Related EMS Activations
Williamsburg (city), Virginia
Hall, Texas
Briscoe, Texas
Fallon, Montana
Kiowa, Colorado
Harrisonburg (city), Virginia
Buffalo, South Dakota
Dallas, Arkansas
Billings, North Dakota
Chase, Kansas

Pre-decisional (not for circulation)
Policy and Regulation
Medicare and Medicaid: Steps towards resilience

- Letter on Implementing Supplemental Benefits for Chronically Ill Enrollees (April 24, 2019)
- Medicaid coverage of air filters and air conditioners, including the Oregon Health Plan 1115 Demonstration Waiver
Categorical Waiver – Health Care Microgrid Systems (HCMSs)

Title
Categorical Waiver – Health Care Microgrid Systems (HCMSs)

Memo #
QSO-23-11-LSC

Posting Date
2023-03-31

Fiscal Year
2023

Title
Various CMS regulations governing certain providers and certified suppliers require compliance with the 2012 edition of the National Fire Protection Association (NFPA) Health Care Facilities Code (NFPA 99). • 2012 edition of NFPA 99 requires emergency power for an essential electric system (EES) to be supplied by a generator or battery system. • 2021 edition of the NFPA 99 permits emergency power for an EES to be supplied by sources other than a generator or battery system, including a health care microgrid.
• NHSC providers take care of those most affected by climate change health impacts
  • Low-income and those experiencing homelessness
  • Tribal populations
  • Incarcerated populations
  • Migrant and seasonal workers
• How might the NHSC best prepare its providers for the challenges posed by climate change to the health of their patients?
• How might the NHSC program work with other parts of HRSA and other agencies to enhance the resilience of NHSC-Approved sites?
Thank you!

Contact us: OCCHE@hhs.gov

Visit us online and sign up for our listserv at www.hhs.gov/ocche