

Climate Change, Health and Equity at the Department of Health and Human Services

April, 2021

Climate change is both an unprecedented *challenge* to health, equity, and prosperity, and an unprecedented *opportunity* to create healthier, more secure, and more sustainable lives for all.

The urgent public health threat of climate change is increasingly clear. In recent years the nation has endured unparalleled hurricanes and tornados, heat waves and wildfires, droughts and flooding. Overlapping disasters are stressing our infrastructure. Infectious diseases are expanding their ranges. Harmful algal blooms affect more of our coasts and inland waters. The allergy season is longer. Anxiety about the future, including the effects of climate change, undermines the mental health of many young people. Frontline communities, poor people, and people of color suffer disproportionately from these health hazards. If current trends continue, many of the health gains of the past century will be reversed. We face a true public health emergency.

The Biden Administration is moving to address the climate emergency through an all-of-government effort. A pair of Executive Orders on [January 20](#) and [January 27](#) laid out an ambitious agenda. Highly qualified and experienced leaders have been appointed across government. The American people can look forward to actions that will bring cleaner energy, zero-carbon transportation, more environmentally friendly industry, more sustainable agriculture, and well-paying, meaningful, clean jobs. Action on climate change will deliver dramatic, immediate health benefits.

There is a crucial role for the Department of Health and Human Services (HHS) in confronting the climate emergency. HHS has the largest budget of any Federal Department (over \$1.3 trillion) and has jurisdiction over nearly 20% of the U.S. economy. There are numerous essential roles for HHS in tackling the climate emergency. However, with COVID-19 dominating the health sector, and with access to health care an ongoing crisis for many Americans, HHS may not fully prioritize climate change. Of the nearly 80,000 HHS employees, fewer than a dozen have expertise in climate and health. Other than a small initiative at CDC (representing 0.0007% of the HHS budget), HHS has no formal programming on climate and health.

The Administration's initial climate actions involve HHS in several ways. The HHS Secretary is a named member of several relevant interagency efforts such as the National Climate Task Force. The Executive Orders directed the HHS Secretary to establish three entities: a) an Office of Climate Change and Health Equity to address the impact of climate change on the health of the American people; b) an Interagency Working Group to Decrease Risk of Climate Change to Children, the Elderly, People with Disabilities, and the Vulnerable; and c) a biennial Health Care System Readiness Advisory Council. This is a promising start, but much more needs to be done.

This document outlines eight critical roles for HHS in addressing the climate emergency and proposes specific actions across the Department and its component agencies to carry out these roles.¹

Critical roles for HHS:

1. **Advancing knowledge on how to protect human health from climate change, equitably**

HHS must help build evidence regarding a) current and future impacts of climate change on health; b) effective and cost-effective strategies for equitable health adaptation to climate change; c) climate change mitigation strategies that will best protect health and equity; d) strategies and methods for a net-zero, climate-ready health care system; and e) methods of health-based climate change communication.

¹ These HHS recommendations build on a broader set of all-of-government [recommendations on climate, health, and equity](#), offered to the Administration by health groups in January, 2021.

2. **Building health-based climate [adaptation and resilience](#)**

HHS must impel the nation's public health and health care systems to anticipate health hazards related to climate change in their localities, where Americans directly experience the impacts of climate change, to implement protective actions (public health *adaptation*), and to build equitable, healthy, and resilient communities.

3. **Ensuring that the [transition to a clean economy](#) promotes health, especially for vulnerable populations**

HHS must help assure that climate *mitigation*—the transition to a low-carbon economy in energy, agriculture, transportation, manufacturing, buildings, and so on—follows the healthiest, and most equitable paths possible.

4. **Advancing [health equity](#) and climate justice**

HHS must help empower climate-vulnerable, Black, Indigenous, and people of color (BIPOC), and frontline communities, supporting full and meaningful participation of these communities in policy-making with implication for climate change adaptation and mitigation. This includes collecting, analyzing, and sharing data to provide the basis for characterizing inequities and disproportionate impact. HHS must also support communities impacted by the transition to clean energy, such as coal-mining communities and oil refinery workers.

5. **Achieving a [climate-ready, low-carbon-footprint health system](#)**

HHS is strategically placed to influence the U.S. health sector. HHS should work to reduce health care demand through disease prevention, to improve care coordination, and to reduce waste in health care delivery. HHS must also help identify strategies to advance climate readiness and resilience in the health care system, to reduce the carbon footprint of clinical services, the supply chain, and research, and to incentivize providers to adopt those strategies.

6. **Building a [health workforce](#) capable of understanding and responding to climate change and health**

HHS must assure that the nation has a robust pipeline of clinicians, researchers, and public health professionals trained to protect and promote health in the context of climate change—filling roles from research to clinical care to health system adaptation and mitigation to disaster preparedness and response.

7. **[Educating the public](#) and policymakers on climate change, health, and equity**

As a leading source of health information for policymakers, health professionals, and the public, HHS must disseminate evidence-based, comprehensible, culturally informed, and solutions-oriented. information on climate change and health.

8. **Linking climate change to US efforts in [global health security](#)**

As the US rejoins the global community in fighting climate change, HHS must assure that climate change is a central focus of the Global Health Security agenda, and contribute expertise and health content to international engagements such as the United Nations Framework Convention on Climate Change (UNFCCC).

How can HHS units can advance these goals?

	OS	ASPR	OGA	ASH	SG	NIH	CDC	CMS	IHS	AHRQ	SAMHSA	HRSA	FDA
Advance knowledge	✓					✓✓				✓	✓		
Adaptation & resilience	✓	✓✓		✓			✓✓	✓	✓	✓	✓		✓
Healthy mitigation	✓			✓			✓✓	✓					
Climate justice	✓	✓	✓	✓	✓	✓	✓		✓✓	✓	✓	✓	
Climate-ready health system		✓	✓		✓	✓		✓✓	✓	✓			✓
Health workforce training		✓	✓	✓		✓✓	✓		✓	✓	✓	✓	
Educating the public	✓			✓	✓	✓	✓✓	✓	✓		✓		✓
Global health			✓✓			✓	✓						

Note: ✓✓ denotes primary role, ✓ denotes substantial role. Almost all units can contribute to almost all goals.

Office of the Secretary (OS)

- Establish a clear vision for HHS commitment to climate and health equity and communicate it broadly.
- Develop a comprehensive national Climate and Health Equity Strategic Action Plan to address the physical and operational risks from climate change to public health systems and health care facilities and the health benefits of climate action, and to assist states, communities, tribes, health departments, and health care facilities in preparing for and responding to the health risks of the climate crisis. This Action Plan should include actions by each HHS agency.
- Hold each HHS agency publicly accountable for developing and implementing its own strategic plan for climate and health equity, including adequate staffing and funding, and report on progress annually.
- Establish and maintain high-level collaboration with sister agencies such as Transportation, Energy, and Agriculture (to name only a few), to assure that climate and health equity are optimized in all policies.
- Develop a national health care decarbonization strategy in line with our nationally determined contributions to Paris and the goal of net-zero emissions no later than 2050 and track sector progress towards achieving emission reductions.
- Partner with EPA and OSTP to develop and implement tools to screen and analyze potential impacts on health and equity of all major infrastructure projects and climate policies.
- Establish an Office of Climate and Health Equity to carry out these functions.

Assistant Secretary for Preparedness and Response (ASPR)

- Integrate climate change scenario-building, planning and preparedness into ASPR planning and into the National Health Security Strategy (NHSS).
- Build capacity (either in-house or through appropriate external arrangements) in climate and health modeling and forecasting, and early warning and related risk communication, to enable integration of climate science into preparedness and response.
- Launch a cross-agency Community Climate Resilience Initiative to assess climate risks and implement community-based plans to address them, integrated with pandemic recovery efforts, to build back in climate-resilient ways. Include meaningful community engagement in the design and execution of these initiatives.
- Work with SAMHSA to integrate climate impacts on mental health into the National Health Security Strategy.

- Work with CMS and AHRQ to strengthen the Healthcare and Public Health Sector Critical Infrastructure Protection (CIP) program, to include climate change scenarios and foster transformational sustainability and resilience in the private health care sector.
- In collaboration with the Department of Commerce, incorporate estimates of health damages associated with extreme weather events into NOAA's annual estimate and reporting of billion-dollar disasters.
- In collaboration with the Department of Homeland Security, incorporate climate and health considerations into the National Planning Scenarios, including updates to include increased likelihood of compounded hazards, sea-level rise, and infrastructure vulnerability to extreme weather events.
- In collaboration with Departments of Defense and Homeland Security and with health care organizations, issue HHS guidance, expand funding, and update rules and regulations to ensure all health facilities are prepared for current and future climate threats, can continue operations during catastrophic events, and can provide care for vulnerable groups during climate disasters, including:
 - Work with Centers for Medicare and Medicaid Services to update Conditions of Participation to include climate mitigation and resilience.
 - Expand the Hospital Preparedness Program to support pre-disaster hospital and health facility resilience projects, including establishing a green loan fund directed at under-resourced hospitals and clinics, to improve their energy efficiency and build resilience to extreme weather.
 - Expand and sustain the EmPower program to support response to other climate related emergencies, and to incorporate data beyond that available in Medicare.
 - Support FDA's Center for Devices and Radiological Health to strengthen the resilience of lifesaving durable medical equipment.
 - Support the Public Health Service Ready Reserve Corps to prepare it to respond to climate-related emergencies.
 - Support climate preparedness in tribal, territorial, safety net and rural hospitals, community health centers and federally qualified and "look alike" health centers, the Indian Health Service, and the Veterans Health Administration.
 - Redouble support for a standardized patient medical record template that would facilitate safe and effective health care in post-disaster circumstances.

Office of Global Affairs (OGA)

- Work with NIH and CDC and the State Department to integrate health into international climate diplomacy e.g., Climate Leaders Summit, COP 26.
- Collaborate with State Department to include consideration of health impacts and benefits in the U.S. Nationally Determined Contribution under the UNFCCC.
- Support the WHO climate and health program.
- Collaborate with State Department and USAID to support health adaptation to climate change in low- and middle-income countries (LMICs).
- Collaborate with Departments of Homeland Security and State to adapt U.S. immigration policy to address climate migration.
- Assure that the State Department Office of U.S. Foreign Disaster Assistance (OFDA) receives solid support from HHS.
- Integrate climate change scenarios into health diplomacy.

Assistant Secretary for Health (ASH)

- Set sustainability and health goals throughout Healthy People 2020 and work with NIH, CDC and state, local, tribal, and academic partners to establish climate and health indicators.
- Utilize HHS convening and leadership functions to advance the HHS climate portfolio and maintain accountability within HHS.
- Together with EPA and OSTP, and building on EPA's Environmental Justice Screening Tool, CalEnviroScreen, and similar tools, create and implement methods to integrate social, economic and structural determinants of health, environmental exposures, and community assets in assessing vulnerability and resilience and targeting investments.
- Coordinate with all relevant HHS units and other Federal and state agencies to connect low-income and medically vulnerable populations, especially those disproportionately affected by climate impacts, with services that address the social determinants of health, as a means of building community resilience. This includes simplifying and streamlining eligibility requirements and enrollment processes to create a "one-stop shopping" or "no wrong door" process for, e.g., the Supplemental Nutrition Assistance Program (SNAP), Medicaid, and the Low Income Home Energy Assistance Program (LIHEAP).
- Through the Office of Disease Prevention and Health Promotion, work with USDA to incorporate both nutritional value and sustainable, locally-grown food products into its Dietary Guidelines for Americans.

Surgeon General (SG)

- Surgeon General should issue a Call to Action on the Climate and Health Emergency, on the scale of past tobacco efforts, and launch a broad public information campaign on climate change and health. This should be grounded in solid research including on health impacts of climate change, attributable health care costs, and health and economic benefits of climate change mitigation.

National Institutes of Health (NIH)

- Support development of a national research and training agenda on climate change and health based on identification of priority knowledge gaps.
- Establish, and adequately fund, a National Institute for Climate Change and Health to support research and training.
- Facilitate innovative funding mechanisms to support research on climate change and health, including NIH co-funding with other relevant agencies e.g., NSF, Agriculture, Transportation, Energy, EPA, USGS, NOAA, NASA.
- In research funding, allow for payment of carbon offsets and telecommunications expenses to incentivize travel reductions, and consider establishing requirements that grantees reduce the carbon footprint of their research operations as a condition of research funding.

Centers for Disease Control and Prevention (CDC)

- Formally review the first decade of CDC's Climate and Health program to identify lessons learned.
- Scale up the CDC Climate and Health program, including possible establishment of a National Center on Climate and Health Equity, funded and staffed at a level that would:
 - Enable CDC to support all state and local health departments with technical assistance and funding, to implement climate risk and vulnerability assessments, risk management appropriate to local risks, health protection, and climate resilience.

- Work with the National Center for Health Statistics, EPA, NOAA, civil society groups, and academic partners, to implement a national climate-health surveillance system.
- Review state-of-the-science on early warning systems, especially for heatwaves, floods, and storms.
- Collaborate with ASPR on mapping areas and populations at most risk for climate related emergencies, to support preventive actions.
- Effectively interface with Schools of Public Health, Medicine, and Nursing and other health professional training programs around climate change and public health.
- Encourage inclusion of climate change and health content into other professional curricula e.g., architecture, urban planning, civil engineering, transportation engineering.
- Position Epidemic Intelligence Service officers for rapid deployment to climate-driven disasters.
- Through the Division of Nutrition, Physical Activity and Obesity, revise the Food Services Guidelines for Federal Facilities to incorporate sustainable, locally-sourced foods and make these mandatory guidelines for federal facilities.
- Establish an initiative at the National Institute for Occupational Safety and Health (NIOSH) focused on worker health in the face of climate change.
- Expand the Environmental Public Health Tracking Network to include surveillance of climate change health indicators and scenario-based projection of climate change health impacts.

Centers for Medicare and Medicaid Services (CMS)

- Identify barriers to implementing sustainability and resilience actions at hospitals and clinics, including funding mechanisms, and ways to overcome those barriers.
- Work with ASPR to update Conditions of Participation to assure both disaster preparedness and operational reductions in carbon emissions, including in clinical service delivery, supply and equipment acquisition, transportation, and food services.
- Update the Emergency Preparedness Rule and interpretative guidance, in consultation with ASPR and the proposed Health Care System Readiness Task Force, to require health care facilities to assess and to prepare for extreme weather and climate impacts, including providing for energy resilience and innovative clean power sources for sustained power outages.
- Evaluate the feasibility of tying Medicare reimbursement to hospital plans for reducing carbon footprints.
- Provide accountable care organizations and accountable health communities more flexibility to spend funds on non-clinical investments and allow for multiyear ACO contracts to improve disease prevention and address vulnerabilities to climate risks such as extreme weather, air pollution, and housing insecurity.
- Assess strategies to utilize Medicaid 1115 waivers and technical assistance to improve climate resilience and emergency response.

Indian Health Service (IHS)

- Support tribal health departments in assessing climate-related health threats such as drought, heat, and wildfires, and in building adaptive capacity and resilience.
- Assist in removing fossil fuel extraction and burning facilities on Indian lands where feasible

Agency for Healthcare Research and Quality (AHRQ)

- Expand Hospital and Health Systems Research and Technology Assessment agendas to include:
 - research focus on safe, efficacious, low-carbon-footprint medical treatment.
 - research focus on health system resilience in face of extreme heat, large-scale smoke events, and other climate-related threats to health.
- Expand National Quality Strategy and Quality Measurement efforts to include climate resilience and environmental performance metrics.
- Work with ASH, ASPR, NIH, and CDC to update the 2014 HHS Sustainable and Climate Resilient Health Care Facilities guidance.

Substance Abuse and Mental Health Services Administration (SAMHSA)

- Collect data on climate-related mental distress through Center for Behavioral Health Statistics and Quality (CBHSQ).
- Establish a focus on assessing and managing climate-related mental distress in the Center for Mental Health Services (CMHS).
- Work with ASPR to integrate mental health impacts of climate change into the National Health Security Strategy and operations.
- Establish a program on community-based mental health resilience.
- Support research to identify the most effective population-level crisis mental health interventions for communities and first responders during and after climate-related disasters, and fund such programs.

Health Resources and Services Administration

- Use health training Titles VII and VIII of the Public Health Service Act to assure that medical, nursing, and public health training programs incorporate a focus on climate change readiness and resilience.
- Incorporate climate resilience and readiness into the HRSA Health Center Program.
- Coordinate with CMS, the Department of Labor, and FEMA to identify childcare and eldercare providers, other home- and community-based health services (HCBS) providers, and other occupations that function as de facto first responders in the event of a crisis, and develop guidance on how to train, support and protect these workers before and while they provide such services.

Food and Drug Administration (FDA)

- Develop an inventory of critical medical supplies, such as IV fluids, to facilitate reallocating them in the event of regional shortages due to supply chain interruptions.
- Accelerate health care GHG emissions reduction through sequestration, distillation and reuse of waste anesthetic gases and phaseout of HFC-propellant inhalers, consistent with FDA regulatory authority and as supported by evidence of safety and efficacy.
- Incentivize GHG emissions reduction in the medical supply chain by incorporating GHG emissions reduction into pharmaceutical and medical device regulation, e.g. by requiring manufacturers to disclose their GHG inventory schedule, scope, and reporting and their emission reduction targets.
- Require pharmaceutical companies to assess adverse effects of medications during heat exposure and provide appropriate labeling on drugs.
- Through the Center for Devices and Radiological Health, strengthen the resilience of lifesaving durable medical equipment.
- In collaboration with U.S. Customs and Border Protection and other relevant federal agencies, improve supply chain transparency of pharmaceuticals and critical medical supplies so that climate risks to supply chains can be properly assessed.

Organization Signers (current as of April 6, 2021):

Academy of Integrative Health & Medicine
African Heritage Physician Assistant Caucus
Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
Altos Eye Physicians
American Association for Community Psychiatry
American College of Preventive Medicine
American Geophysical Union
American Meteorological Society
American Psychological Association
American Public Health Association
Association of Academic Psychiatrists
Asthma and Allergy Foundation of America
Boston College
Break the Cycle of Health Disparities, Inc
California Communities Against Toxics
Climate and Health Program, Mailman School of
Public Health, Columbia University
Climate for Health / ecoAmerica
Climate Health Now
Climate Psychiatry Alliance
College of Public Health, University of Georgia
College of Public Health, University of Nebraska
Medical Center
Drexel Dornsife School of Public Health
George Mason University Center for Climate
Change Communication
Georgia Clinicians for Climate Action
Georgia State Medical Association, Inc.
Health Care Without Harm
Health Professionals for a Healthy Climate
Health Sciences, Stony Brook Medicine, Stony
Brook University
Healthy Air and Water Colorado
Mass General Center for the Environment and
Health

Medical Society Consortium on Climate & Health
Medical Students for a Sustainable Future
Michigan Clinicians for Climate Action
National Association of Local Boards of Health
National Association of Nurse Practitioners in
Women's Health
National Association of Pediatric Nurse
Practitioners
National Association of Social Workers
National Environmental Health Association
National League for Nursing
National Medical Association
New Jersey Clinicians for Climate Action
Ohio Clinicians for Climate Action
Pediatricians for Climate Action
Physicians for Social Responsibility
Planetary Health Alliance
Program in Public Health, College of Human
Medicine, Michigan State University
Public Health Institute
Rollins School of Public Health at Emory University
School of Community and Global Health, CGU
School of Marine and Atmospheric Sciences
(SoMAS), Stony Brook University
School of Public Health, West Virginia University
Society for Pediatric Dermatology
Society for Public Health Education
Trust for America's Health
UNC Gillings School of Global Public Health
University of Washington Center for Health and the
Global Environment (CHanGE)
Utah Physicians for a Healthy Environment
Vermont Climate and Health Alliance
Virginia Clinicians for Climate Action
Wisconsin Health Professionals for Climate Action
Yale Center on Climate Change and Health
