

**Written Testimony for Dr. John M. Balbus, M.D., M.P.H.**  
**Office of Climate Change and Health Equity Director**  
**U.S. Senate Committee on Veteran's Affairs**  
**November 15, 2023**

Chairman Tester and Ranking Member Moran, and Members of the Committee, thank you for the opportunity to discuss the work of the Office of Climate Change and Health Equity to build greater climate resilience and sustainability in the country's health care delivery systems.

The Secretary of Health and Human Services established our Office in response to Executive Order 14008, and the Office was officially launched August 31, 2021, with the mission to help protect the health of people in the United States, especially those most vulnerable, from the health impacts of climate change. As a focal point for action to address the climate crisis within the Department of Health and Human Services, we have also taken on assuring the health systems in the United States are resilient to increasingly severe climate-related threats and are reducing their own significant contributions to greenhouse gas pollution.

I am pleased to be brought together with colleagues from the Veterans Health Administration and plan to emphasize the following points:

- The health impacts of climate change are being felt now in the United States, but the suffering induced falls most heavily on low-income, disadvantaged populations and other vulnerable groups.
- The health *system* impacts of climate change are also being felt now, with attendant health impacts and economic damages. Climate change compounds all the other financial stresses on health systems. Fortunately, initial steps that address both health system resilience and greenhouse gas pollution reduction, like health system microgrids, also reduce energy costs for the systems that install them.
- The Office of Climate Change and Health Equity is helping coordinate an all-of-government approach to the health aspects of the climate crisis, including helping assure the health care safety net of the country is able to take full advantage of technical assistance and financial resources provided for great sustainability and resilience, for example, through the Inflation Reduction Act.

This past summer of 2023 brought unprecedented human suffering and damage from extreme weather events across the country. From wildfire smoke in New York City to devastating wildfires in Maui, much of the country directly experienced more frequent and more severe climate change impacts than ever before. These climate-related events directly impact the health and wellbeing of those living in the U.S.

These impacts were not equitably distributed. We know that certain populations, such as children, older adults, those with chronic health conditions and disabilities, racial and ethnic minorities, and people experiencing homelessness, are more at-risk of negative health outcomes from climate-related hazards. This is true for both the general population and for veterans, specifically.

For example, a recent publication<sup>1</sup> from the U.S. Department of Veterans Affairs, Stanford University, University of Iowa, and the Centers for Disease Control and Prevention (CDC) found that Black and American Indian/Alaska Native Veterans were more likely to be diagnosed with heat-related illnesses,

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<sup>1</sup> [Trends in heat related illness: Nationwide observational cohort at the US department of veteran affairs - ScienceDirect](#)

and veterans with existing medical conditions, including common comorbidities, also saw a greater increase in heat-related illness over time. Additionally, the report found that the rate of heat-related illness in veterans increased from 2002 to 2019.

After a summer of record-breaking temperatures, Maricopa County, Arizona recently announced that there were 425 heat-related deaths in 2023, tying the record number from 2022, with nearly 200 more still under investigation<sup>2</sup>. In 2022, 42% (178) of heat-related deaths in Maricopa County were among individuals experiencing homelessness and 67% (283) involved substance use. Of the deaths involving substance use, over half were among individuals experiencing homelessness. These sobering statistics from Arizona are relevant to the care of veterans as well. In 2022, over 33,000 veterans were experiencing homelessness on any given night, comprising approximately seven percent of all adults experiencing homelessness in the U.S. Additionally, more than 20% of veterans with post-traumatic stress disorder also have substance use disorder.<sup>34</sup>

In addition to these health impacts, climate change also poses risks of stress and disruption to healthcare delivery. Climate-related extreme weather events and disasters can disrupt healthcare systems at multiple points: creating a surge in healthcare demand, resulting in staffing shortages, affecting critical supply chains, and damaging infrastructure. We have seen how health system failures have resulted in loss of life after Hurricane Ida, Superstorm Sandy, and especially Hurricane Maria in Puerto Rico, where roughly 3000 excess deaths occurred over the four months following the storm.

We know that climate change will continue to have an impact on our health systems. A 2022 study<sup>5</sup> found that approximately one-third of metropolitan statistical areas (MSAs) on the Atlantic and Gulf Coast have half or more of their hospitals at risk of flooding from even relatively weak hurricanes. Sea level rise and increased frequency and severity of hurricanes from climate change will further increase this risk. Unfortunately, there has been very little investment in studies like this that highlight future risks, and especially studies that analyze the specific tipping points for caused health systems to fail in extreme events. We hope this evidence base can be built to make facilities and systems more resilient and save lives.

Our Office aims to have the entire health sector working together to meet the challenges of climate change. That means becoming more prepared for climate events and also more sustainable, thereby decreasing the health sector's 8.5% contribution<sup>6</sup> to our country's greenhouse gas (GHG) emissions.<sup>7</sup> Reducing GHG emissions through interventions such as increased energy efficiency and renewable energy sources can reduce operating costs, freeing resources for investments in essential patient services. Moreover, emissions reduction and resilience are closely related. For example, the VA makes renewable power part of its facility infrastructure and equipment upgrades where feasible. VA hospitals

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<sup>2</sup> [News Flash • Maricopa County, AZ • CivicEngage](#)

<sup>3</sup> [The 2022 Annual Homelessness Assessment Report \(AHAR to Congress\) Part 1: Point-In-Time Estimates of Homelessness, December 2022 \(huduser.gov\)](#)

<sup>4</sup> [PTSD and Substance Abuse in Veterans - PTSD: National Center for PTSD \(va.gov\)](#)

<sup>5</sup> [Flood Risk to Hospitals on the United States Atlantic and Gulf Coasts From Hurricanes and Sea Level Rise - Tarabochia-Gast - 2022 - GeoHealth - Wiley Online Library](#)

<sup>6</sup> <https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.01247>

<sup>7</sup> <https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.01247>

overall use 38 percent less energy per square foot than the national average for all hospitals<sup>8</sup>, and by installing on-site renewable power, VA facilities become more resilient to grid failures.

An example from the private sector is Kaiser Permanente's Richmond Medical Center, which implemented a microgrid that connects renewable energy and battery storage and includes a 250-kW solar power system installed on top of the medical center's parking garage. This project demonstrated the ability of a microgrid to support and sustain the functions of a health care facility. As a result, Richmond Medical Center stands to save an additional 2.63 megawatt hour of energy per year, resulting in annual savings as high as \$394,000.<sup>9</sup>

The Office of Climate Change and Health Equity shares examples like the Kaiser's and the VA's so health systems understand the power and return on investment offered by these types of investments. The health sector has come a long way. Through the White House/HHS Health Sector Climate Pledge, a voluntary commitment to climate resilience and emissions reduction, organizations representing over 800 hospitals have signed on to be part of the solution.<sup>10</sup>

The Federal Health Systems – the Indian Health Service, Veterans Health Administration, Defense Health Agency, and Bureau of Prisons Health Services Division – are working to meet similar goals, as required by Executive Order 14057. This means that between the voluntary Pledge and the Federal Health Systems, over 1,120 hospitals have committed to resilience and sustainability, representing over 15% of U.S. hospitals.<sup>11</sup>

The Office of Climate Change and Health Equity coordinates the Federal Health Systems Learning Network, a collaboration focused on sharing best practices and addressing common challenges in reducing emissions and investing in resilience of federal health facilities. These health systems share their learning on sustainability and preparedness through regular exchange sessions with each other and public events.

In addition to working closely with Federal Health Systems, our Office works across HHS to achieve our vision of a climate resilient and sustainable health sector. For example, following a Request for Information created and analyzed with our Office<sup>12</sup>, the Centers for Medicare & Medicaid Services (CMS) issued a categorical waiver permitting certain health care facilities regulated by CMS to utilize alternate sources of power via health care microgrids rather than traditional backup power sources like diesel generators.<sup>13</sup> This change facilitates use of reliable, clean energy through small-scale electrical microgrids. Our Office is also working with CMS on revisions to the Emergency Preparedness Rule that

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<sup>8</sup> <https://www.ahrq.gov/sites/default/files/wysiwyg/healthsystemsresearch/decarbonization/decarbonization.pdf>

<sup>9</sup> <https://betterbuildingssolutioncenter.energy.gov/implementation-models/kaiser-permanente-pioneers-californias-first-medical-center-microgrid>

<sup>10</sup> <https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/actions/health-sector-pledge/index.html>

<sup>11</sup> <https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/actions/health-sector-pledge/index.html>

<sup>12</sup> Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Policy Changes and Fiscal Year 2023 Rates; Quality Programs and Medicare Promoting Interoperability Program Requirements for Eligible Hospitals and Critical Access Hospitals; Costs Incurred for Qualified and Non-Qualified Deferred Compensation Plans; and Changes to Hospital and Critical Access Hospital Conditions of Participation (87 FR 49167)

<sup>13</sup> <https://www.cms.gov/files/document/qso-23-11-lsc.pdf>

will propose to update requirements for Medicare- and Medicaid-participating providers and suppliers to plan adequately for both natural and man-made disasters, including climate-related disasters<sup>14</sup>.

Helping the American health sector, and particularly our safety-net health care organizations, become more resilient, energy-efficient, and sustainable, ultimately protects the health and safety of all people in this country.

That's why the Office of Climate Change and Health Equity is working closely with the Administration for Strategic Preparedness and Response (ASPR) to update our Sustainable and Climate-Resilient Health Care Facilities Toolkit, which highlights best practices to help health care facilities become more prepared for climate-related hazards. And why the Office has created guidance and webinars designed to help the health sector leverage government grants and tax credits that can support climate resilience and sustainability. A particular focus for us is the Inflation Reduction Act, which makes billions of dollars available for climate action.

In October, we held a *Roundtable on Leveraging the Inflation Reduction Act for Safety-Net Health Organizations* with the White House.<sup>15</sup> At that event, Admiral Rachel Levine announced that we will be leading a catalytic program in early 2024 to help safety-net health care organizations take advantage of the transformative tax credits and grant programs created by the Inflation Reduction Act.<sup>16</sup> That program will involve safety-net provider member associations like America's Essential Hospitals, the National Rural Health Association, and the National Association of Community Health Centers.<sup>17</sup> We hope to see many safety-net health providers become better prepared for climate hazards and more sustainable thanks to the Inflation Reduction Act.

The Office of Climate Change and Health Equity appreciates all Congress has done to help the American health sector prepare for the effects of climate change, and we look forward to continuing to advance our shared goals of advancing health equity, increasing community resilience, and improving sustainability across our nation's health care system.

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<sup>14</sup> <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202304&RIN=0938-AV21>

<sup>15</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/20/readout-of-white-house-roundtable-on-leveraging-the-inflation-reduction-act-for-safety-net-health-organizations/>

<sup>16</sup> <https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/health-sector-resource-hub/new-catalytic-program-utilizing-ira/index.html>

<sup>17</sup> Wording of the WH Readout <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/20/readout-of-white-house-roundtable-on-leveraging-the-inflation-reduction-act-for-safety-net-health-organizations/>