

The Root Cause Coalition is focused on a range of social drivers and their effect on public health. Below is a selection and summary of timely news articles, research and advocacy efforts focused on climate and health equity. This complements the Coalition's January Research on Climate and Social Drivers of Health, available here.

Climate Change and Health Equity

Climate Change has significant implications for individual and community health, both exacerbating existing issues and creating new challenges as temperatures rise and weather becomes more extreme. Factors such as heat, air pollution, and an increase in natural disasters can affect various aspects of well-being from heart to mental health. These issues are even more likely to affect vulnerable populations, adding to existing health disparities and consequences. Figure 1 from the World Economic Forum details some of the potential outcomes resulting from a range of climate hazards.

Figure 1: Overview of Climate Hazard Impact on Health Outcomes



Climate Change Predicted to Quadruple Air Quality Alerts by 2100 - January 2024

A recent report by the *Proceeding of the National Academy of Sciences* details the health and equity implications for increased air pollution in a rapidly changing climate, especially for disadvantaged communities. The report found that air pollution quality reports are projected to quadruple by 2100 in the Eastern United States if emissions are not reduced. This region of the country includes many vulnerable populations,, including those who may lack adequate housing and/or homes that are unable to adapt to poor air quality.

Fifth National Climate Assessment Released-November 2023

The National Climate Assessment (NCA) is an annual congressionally mandated report summarizing recent research on the present and future impacts of climate change on the United States. Mandated in 1990 in the Global Change Research Act (GCRA), the NCA was created as "a comprehensive and integrated United States research program which will assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change."

In November 2023, the fifth assessment was released, highlighting key threats to health as a direct result of climate change. Among these threats was a wider distribution of vector borne pathogens, such as rabies, toxoplasmosis, and fungal diseases; increases in adverse pregnancy outcomes; worsening of air quality, leading to an increase in pulmonary and cardiovascular disease, and an increase in the amount of mental health stressors.

Increased Temperatures Projected to Significantly Impact Heart Health - November, 2023

The American Heart Association released a study detailing the risk of increased temperatures on cardiovascular health in the United States and the projected impact this will have on excess cardiovascular deaths. From 2008-2019, extreme heat as a result of climate change was associated with 1,651 excess cardiovascular deaths. By midcentury (2023-2065), this number is projected to be associated with 4,320 annual excess deaths, or a 162% increase.

Changing Climatic Conditions Assisting in Pathogenic Growth - October 2023

Maryland researchers funded by the National Institute of Environmental Health Sciences ascertained changing climatic conditions influence parameters associated with the growth of pathogenic Vibrio spp. in the environment, linking to an increase in vibriosis in Florida. Cases of vibriosis have been on the rise since 1992, but following Hurricane Ian's unusually heavy rainfall, high winds, and dangerous surf, there was an abundance of warm waters with low-salinity (perfect conditions for this bacteria to grow) as a result of flash floods. This increased exposure led to 74 reported cases of *V. vulnificus*, 17 of which were deaths, nearly doubling previous years. This study provides insight into the projected growth of related microbial populations as a result of climate change and it's impact on human health.

<u>Peurto Rico and U.S. Virgin Islands Experiencing Physical and Mental Health Stressors as a Result of Climate Change</u> - January 2024

The heightened frequency and intensity of hurricanes and other extreme weather events linked to climate change are expected to result in increased sickness, elevated mortality rates, and an overall decline in the quality of life for residents in Puerto Rico and the U.S. Virgin Islands. Mental health issues such as overdoses, alcoholism and dementia have been on the rise over the past two years and are expected to increase as adverse weather patterns continue to disproportionately affect these tropical areas.

<u>California Farmworkers Advocate for Climate Justice and Health Equity Through Video</u> <u>Documentation</u> - January 2024

Seven farmworkers in Ventura, CA documented and shared their stories about the health impacts associated with climate change challenges such as flooding, extreme heat, and wildfires through video documentation. These videos have helped bring awareness to the massive impact climate change has on farmwork. Shared in their native languages, workers documented afflictions such as heatstroke, fainting spells, over-exhaustion, and chronic pain associated with increased labor as a result of climate change weather patterns.

Kresge Foundation Creates Communication Plan to Address Climate Change Needs - Nov. 2023

The Kresge Foundation, in conjunction with Metropolitan Group, has created a communication plan to address the needs expressed by its Climate Change, Health & Equity (CCHE) initiative grantees. The goal is to provide messaging that promotes racial justice, social justice, and health equity in climate change policies and practices. This communication guide aims to bring about short-term, sustainable changes and contribute to the broader movement for climate justice. The guide is a practical tool to help individuals effectively communicate key messages about climate change, health, and equity, fostering a shared understanding and support for positive changes.

<u>Six Cities Taking Action to Address Health Equity in Relation to Climate Change</u> - October 2023

Six US cities were awarded the Robert Wood Johnson Foundation grant-funded project to support community-led projects in response to the challenges presented by health equity and climate change. Each city was awarded funding to tackle a climate and health challenge unique to their goals and needs as a city. Focus areas of these projects included the circular economy, waste management, anti-displacement efforts, and mitigating heat. Each project has fostered community engagement, connections, and collaborations that aim to sustain advocacy work against climate change long after funding for the projects ends.

<u>Faculty at Carle Illinois College of Medicine Gearing Teaching Towards Interconnectedness of Climate Change and Health</u> - October 2023

The Teaching Faculty at Carle Illinois College of Medicine have developed two case-based learning modules designed to teach students two things: how to factor in the health implications of climate change when practicing medicine and how to use their knowledge to advocate for environmental health policies in their communities. Each module was developed so students could learn about health risks associated with climate change-driven extreme weather events, and how students could actively advocate for policies that address climate change.

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