

Executive Summary

The Lancet Countdown Policy Brief for the United States (U.S.) builds on the evidence presented in the 2022 Global Lancet Countdown Report to provide an annual country-level assessment of scientific data on climate change and health. The Brief exposes the inequitable health burdens associated with climate change, and highlights opportunities to improve health through swift policy action. **The 2022 U.S. Brief is supported by a diverse group of health experts from more than 80 organizations who recognize that climate change is first and foremost a health crisis.**

The State of Climate Change and Health in the United States

Climate change and its primary driver – burning fossil fuels – have created an accelerating crisis of far-reaching health impacts including heart and lung disease, heat-related illness, infections, food- and waterborne ailments, poor pregnancy outcomes, adverse mental health impacts, injuries, and death. There are also significant implications for health and well-being with disruption to health care delivery; population displacement; interruptions in education, employment, and other community services; and societal-wide economic harm.

While everyone is at risk, the health impacts of climate change are not experienced equally. Structural racism and economic injustice amplify climate change-related health inequities by increasing susceptibility and exposure to climate threats and reducing the adaptive capacity of communities targeted by discriminatory policies. Climate change is one of many compounding health crises facing communities and health systems across the U.S. today, furthering the urgency of decisive policy action to protect health. The 2022 Brief focuses on four areas of health impact: health harms of poor air quality, heat-related illness, infectious disease, and mental health.

Burning Fossil Fuels Drives Poor Air Quality, Harms Health, and Increases Health Inequities.

Fossil fuel combustion produces climate change-causing greenhouse gas emissions and harmful air pollution. Air pollution harms every major organ system in the body, causes heart disease and childhood asthma, and is a major cause of illness and death in the U.S. Children are uniquely susceptible. Due to systemically unjust policies, there are deep racial and income inequities in air pollution exposure. In addition, climate change worsens air quality by increasing exposure to wildfire smoke, dust, ground-level ozone, and pollen – all of which harm health. The illness and death caused by air pollution impose a major economic toll.

Extreme Heat is Becoming More Severe and There are Wide Inequities in Heat-Related Illness and Death.

Heat is the leading cause of weather-related death in the U.S. Susceptibility to heat-related illness is heightened among children, pregnant people, older adults, and people living with pre-existing illness. Extreme heat can threaten children's physical and mental health, impair their ability to learn in school, and threaten safe outdoor play. Extreme heat exposure during pregnancy is associated with poor birth outcomes. People from communities of color and low-wealth communities, outdoor workers, people experiencing homelessness, and people who are incarcerated are often more exposed to extreme heat and thus more often suffer from heat-related illness and death. Strategies exist at the household, community, and city levels that can protect against extreme heat and other climate-related health harms, yet not all people and communities have equitable access to the resources and strategies known to minimize heat risks.

Climate Change is Increasing the Threat of Infectious Diseases.

Early evidence suggests climate change may be linked with increases in the incidence of more than half of infectious diseases worldwide. Water-borne disease threats are increasing as warmer water is more conducive to the growth of pathogenic bacteria such as *Vibrio* spp. Increased flooding can contaminate drinking and recreational waters, contributing to higher rates of gastrointestinal illness. Climate change is also expanding the areas in which disease-transmitting ticks and mosquitoes live, increasing the suitability for the transmission of pathogens that cause Lyme disease and West Nile.

Climate Change Harms Mental Health and Well-Being.

Climate change is associated with increased risk of depression, stress, post-traumatic stress disorder, anxiety, grief, substance abuse, disempowerment, and hopelessness. Children, young people, and rural and Indigenous communities are particularly impacted.

Policy Recommendations to Advance Health and Equity in the U.S. Climate Change Response

The U.S. is at a turning point on climate change. The Inflation Reduction Act, Infrastructure Investment and Jobs Act, and CHIPS and Science Act create historic new federal investments to support a transition to clean energy and build climate resilience. City, tribal, and state governments are innovating and scaling up local climate action. Yet the U.S. continues to pursue climate strategies inconsistent with health and equity goals — subsidizing fossil fuels, expanding oil and gas leases, and underfunding climate change and health programs.

Our ongoing reliance on fossil fuels causes tremendous health harm. A rapid transition to clean energy and away from fossil fuels can result in immediate health benefits including cleaner air and safer, more resilient communities, while also protecting against the worst climate change-related health threats. To best protect health and equity, these goals must be prioritized in climate policy implementation. The U.S. Brief offers five recommendations to ensure that historic climate actions and investments protect health today and create a healthier and more equitable future for all people in the U.S.:

1 Achieve a zero-emission energy sector and prioritize air quality improvements in the most impacted communities. The U.S. must rapidly reduce greenhouse gas emissions by an estimated 57% to 63% by 2030 to achieve national emissions consistent with the goals of the Paris Agreement. This will require additional action and investment by all levels of government. To advance health, implementation of clean energy policies must ensure that all communities have equitable access to healthy, clean energy solutions, and that air quality improvements target the most impacted communities.

2 Accelerate the transition to a zero-emission transportation system that equitably benefits health. Decarbonizing transportation will bring immediate health benefits including cleaner air and more physical activity. To maximize health equity, federal and state governments can: increase funding for zero-emission public transit systems and active transportation infrastructure (e.g., walking, biking); strengthen fuel efficiency and pollution standards; expand state incentives to accelerate equitable electric vehicle access; and expand access to clean and reliable transportation in rural communities.

3 End the development of all new fossil fuel infrastructure and phase out fossil fuel subsidies as rapidly as possible, while ensuring a just transition. Ending new fossil fuel development will protect health and improve health equity. Policies must also minimize the health impacts of existing fossil fuel infrastructure. These efforts must be accompanied by investments to support workers and communities in the just and equitable transition to renewable energy.

4 Target investments in adaptation to build healthy, resilient, and equitable communities. Investing in community resilience will prevent the worst impacts of climate change, strengthen public health and health care systems, and improve overall health outcomes. These efforts - targeted in the most burdened communities - must prioritize multi-sector strategies to strengthen health systems, build neighborhoods that buffer against extreme heat and other climate events, and redress historic harms of economic and social disinvestment.

5 Scale up U.S. contributions to global climate change finance to support global health equity. Achieving the global goal of limiting temperature rise to 1.5°C will protect health now and for future generations. Current financing from the U.S. and other high-income countries falls far short of what is needed to help all countries rapidly reduce greenhouse gas emissions and achieve this global climate target. The U.S. must fulfill and expand its commitment to increase U.S. contributions to global climate finance for clean energy, adaptation, and a just transition.