

Information for Medical Professionals

Diagnosis: Fossil fuel pollution and climate change are harming our patients now, particularly the most vulnerable.

Prognosis: Action now can improve our patients' health, lower their risks of future harms, and advance equity.

Treatment: The medical community must implement health protections, advocate for an equitable and just transition away from fossil fuels, and ensure that health and equity are central to U.S. action on climate change.

The State of Climate Change and Health in the United States

Our widespread reliance on fossil fuels has created an accelerating health crisis. Fossil fuel generated particulate matter (PM_{2.5}) air pollution is conservatively estimated to cause tens of thousands of American deaths each year, with some estimates much larger, in addition to driving the broad health harms from climate change. On top of these direct negative health impacts, burning of fossil fuels is directly causing climate change. Extreme heat, flooding, drought, wildfires, and disease outbreaks are becoming more frequent and widespread as a result, threatening our patients' health and wellbeing. The 2022 *Lancet* Countdown U.S. Policy Brief focuses on health impacts and their inequitable distribution in four key areas: poor air quality, heat-related illness, infectious disease, and mental health.

Burning fossil fuels causes poor air quality, harms health, and increases health inequities.

Fossil fuel combustion drives air pollution and climate change, harming every major organ system. Children are particularly susceptible to these health harms. Systemically unjust policies have created deep racial and income inequities in air pollution exposure. Climate change worsens the problem by increasing exposure to wildfire smoke, dust, ground-level ozone, and pollen. Illness and death caused by air pollution imposes 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 is greatest among children, pregnant people, older adults, and the chronically ill. Extreme heat can threaten physical and mental health, impair learning, and threaten safe outdoor play. It is also 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 more vulnerable when exposed—and they are exposed more frequently. Protective measures are available, but these are not equitably distributed.

Climate change is increasing the threat of infectious diseases.

Climate change has the potential to worsen the incidence of more than half of the world's infectious diseases. Warming, flooding, and changing vector ecology are all increasing risks for Dengue, Lyme Disease, West Nile virus infection, and *Vibrio* spp. infections in the U.S. Protective measures are available, but they need to be widely and equitably deployed and maintained as threats mount.

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. These impacts are particularly harmful for children, young people, and rural and Indigenous communities.

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 open tremendous amounts of new investment to support the clean energy transition and build climate resilience. City, tribal, and state governments are innovating and scaling up local climate action.

- 1. Achieve a zero-emission energy sector and prioritize air quality improvements in the most impacted communities:** Action must be consistent with the goals of the Paris Agreement, and policies must be implemented to ensure that all communities have equitable access to healthy, clean energy solutions and that air quality improvements are prioritized in the most impacted communities.
- 2. Accelerate the transition to a zero-emission transportation system that equitably benefits health:** Increasing funding for zero-emission public transit and active transportation infrastructure, advancing clean fuel standards, expanding equitable electric vehicle access, and expanding clean and reliable transportation in rural communities will bring immediate health benefits.
- 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, minimizing the impacts of existing fossil fuel infrastructure, and investing in a just and equitable transition to renewable energy will protect health and improve health equity.
- 4. Target investments in adaptation to build healthy, resilient, and equitable communities:** Investing in community resilience, particularly for the most burdened communities, will prevent the worst impacts of climate change, ensure the strength of public health and health care systems, and improve overall health outcomes.
- 5. Scale up U.S. contributions to global climate change finance to support global health equity:** Limiting warming to 1.5°C will protect health now and for future generations. Financing from the U.S. is needed yet currently falls far short. The U.S. must fulfill and expand its financial commitments to clean energy, adaptation, and a just transition at home and in the countries most impacted by climate change.

Action on Climate Change is a Prescription for Improved Health and Equity in the U.S. Climate Change Response

We are stronger together, and we must work alongside the patients and communities that are disproportionately impacted by the harms of fossil fuels. Thus, we should fill these prescriptions in close collaboration with a broad coalition that includes frontline communities, public health, and multisectoral decision makers.

- **Prescription 1:** Implement health protections—especially for those most at risk—in your clinical practice, institutions, and communities.
- **Prescription 2:** Advocate for an equitable and just transition away from fossil fuels at the local, state, and national levels.
- **Prescription 3:** Come together with other health professionals to insist that health and equity become the central goals of U.S. climate policy and action.
- **Prescription 4:** Hold your institutions accountable for reducing greenhouse gas emissions from the health care sector.

The 2022 *Lancet* Countdown Brief was developed by a diverse group of health experts from over 80 U.S. organizations who recognize that climate change is first and foremost a health crisis.