For Immediate Release: October 25, 2022
Contact: Paige Knappenberger, pknappenberger@climatenexus.org, 602.549.0344
Reports: 2022 U.S. Brief, Global Lancet Countdown Report

32,000 Dead in U.S. Due to Air Pollution In 2020 Alone, Other Climate Related Health Harms Accelerating

Latest data shows American's health getting worse due to climate change; strong action needed immediately

A new report released Tuesday October 25, 2022 by an international research collaboration of 99 experts from 51 institutions, including the World Health 7Organization (WHO), World Meteorological Organization (WMO), and led by University College London, warns that global health is at the mercy of fossil fuels. An accompanying U.S. Brief by a diverse group of health experts from over 80 leading U.S. institutions lays out the current relationship between climate change and health in the U.S. and makes necessary policy recommendations to avoid catastrophe. It finds that, in addition to many other serious health harms from climate change, in 2020 there were approximately 32,000 deaths in the U.S. due to exposure to ambient human caused particulate matter pollution, 37% of which were directly related to fossil fuels.

The research comprises the sixth **U.S. Brief,** accompanying the seventh annual **2022 Report of the *Lancet* Countdown on Health and Climate Change: health at the mercy of fossil fuels** published in The Lancet, also released Tuesday.

The U.S. Policy Brief uses country-specific indicator data from the 2022 global Lancet Countdown report, as well as other recent scientific studies, to expose the inequitable health risks of climate change, including heat, air pollution, infectious diseases and mental health. It also highlights opportunities to improve health through swift action. We all experience these health risks, but they fall hardest on people of color and low-income people.

The policy brief builds from the global *Lancet* Countdown report, which presents 43 indicators that monitor the impacts of climate change on health, and the health benefits of climate action. The 2022 global *Lancet* Countdown report warns that global health is at the mercy of fossil fuels, revealing that the health impacts of multiple crises are being exacerbated by persistent fossil fuel dependence and are putting additional strain on health systems. Acknowledging the compounding shocks of the COVID-19 pandemic, conflict in Ukraine, and a global energy and cost of living crisis; the global report highlights that we are at a critical juncture, facing a very real danger of countries backsliding on climate commitments in their responses.

"Climate change is the greatest threat to health and equity, and here in the US, we are experiencing those threats through air quality-induced disease, heat-related illness, infectious disease threats, and mental health burdens," said **Natasha K. DeJarnett, PhD, MPH, BCES, co-lead author of the 2022 *Lancet* Countdown U.S. Brief and Assistant Professor of Medicine at the Christina Lee Brown Envirome Institute at the University of Louisville**, *"But, there is much that can be done to protect health and advance equity."*

"Our dependence on fossil fuels is harming our health, but we have solutions available to us today that will protect our health now and for future generations," said **Naomi S. Beyeler, MPH, MCP, PhD(c) co-lead author of the 2022 *Lancet* Countdown U.S. Brief and Director of Climate Change and Global Health Initiative at the University of California San Francisco Institute for Global Health Sciences**. *"By moving quickly towards an economy based on clean energy, like wind and solar, we can slow climate change and see immediate improvements in our health through cleaner air and more livable communities."*

The authors centered public health and equity in developing a series of evidence-informed policy recommendations that would improve health outcomes for marginalized and frontline communities while mitigating the causes of climate change.

POLICY RECOMMENDATIONS FOR THE UNITED STATES

- Achieve a zero-emission energy sector and prioritize air quality improvements in the most impacted communities.
- Accelerate the transition to a zero-emission transportation system that equitably benefits health.
- End the development of all new fossil fuel infrastructure and phase out fossil fuel subsidies as rapidly as possible, while ensuring a just transition.
- Target investments in adaptation to build healthy, equitable, and resilient communities.
- State and federal investments in adaptation should prioritize the health and well-being of communities most susceptible to climate risks by investing directly in the most impacted communities.

Health Harms of Poor Air Quality

- 32,000 deaths in the U.S. were due to exposure to ambient human caused particulate matter pollution (PM2.5), 37% of which were directly related to fossil fuels.
- Extended pollen seasons and higher levels of airborne pollen are associated with respiratory health harms like asthma.
- Air pollution and heat interact to worsen health outcomes.

Heat Related Illness

- Climate change is causing the U.S. to experience hotter and longer warm seasons, and more frequent, longer, and more intense heat waves. 2021 was the sixth-warmest year on record, and 2022 saw record-breaking heat waves across the U.S.

- Heat exposure causes widespread health harms including: acute and chronic heart, lung, and kidney disease, adverse mental health outcomes such as mood and anxiety disorders, schizophrenia, and increased suicide risk; increased risk of preterm birth and stillbirth; disrupted physical activity patterns; worsened sleep; heightened risk of seasonal allergies with complications for those with underlying lung conditions; and increased emergency department visits.
- Young children and older adults are disproportionately harmed by warming and older adults are disproportionately affected by heat-related morbidity and mortality.
- Areas with the largest projected increases in heat-related mortality are 40% more likely to be home to Black and African American people. Heat-related mortality is also higher for non-U.S. citizens. Exposure to extreme heat is higher for outdoor workers, people experiencing homelessness, and people who are incarcerated.
- For example, in Philadelphia, there is less tree cover in communities of color.
- As a result of financial constraints, many households may limit their use of electricity by not using or by deferring the use of A/C even under hot temperatures. This can increase the risk of heat-related illness. A recent study found a large energy equity gap such that low-wealth, and Black and African American households have higher temperature thresholds to begin using A/C compared to higher-income and white households.

Infectious Disease

- The rising threat of heavy flooding events increases the risk of stormwater overflow into sewer water systems – particularly combined sanitary and storm sewer systems, contaminating drinking and recreational waters with dangerous levels of harmful bacteria.
- Climate change is contributing to disease-transmitting ticks and mosquitoes being able to live and thrive in new parts of the U.S. for a greater portion of the year.

Mental Health Impacts

- There are individual, community, health care, public health, and policy solutions that can respond to and reduce the mental health impacts of climate change.

ABOUT THE US BRIEF

The U.S. Brief is produced by a working group composed of leading experts and researchers from dozens of American medical and public health schools, research institutes, advocacy organizations, and nonprofits. It combines original findings with country-specific indicator data from the 2022 global *Lancet* Countdown report, as well as other recent scientific studies.

ABOUT THE LANCET COUNTDOWN GLOBAL REPORT

The **2022 Report of The *Lancet* Countdown on Health and Climate Change: health at the mercy of fossil fuels**, is the seventh Lancet Countdown report. The *Lancet* Countdown is a

collaboration of 99 experts from 51 institutions including the World Health Organisation (WHO) and World Meteorological Organisation, led by University College London. The report publishes ahead of the 27th UN Conference of the Parties (COP27) presenting 43 indicators that include new and improved metrics that monitor the impact of extreme temperature on food insecurity, household air pollution, and the alignment of fossil fuel industry with a healthy future.