

Environmental Health: Translating Policy Into Action

Climate instability, extreme weather, and natural disasters have surged over the past 50 years, resulting in substantial and increasing harms to human health. Almost daily, evidence of the rapidly escalating climate crisis grows. As we write, wildfires fueled by record high temperatures rage on the West Coast. In July, extreme rainfall—600% higher than usual—caused historic flooding and 39 deaths in eastern Kentucky (1). In June 2021, 157 people died when record-breaking temperatures topped 110°F in Washington, making it the deadliest weather event in the state's history (2). A driver of these and other disasters are planet-warming greenhouse gas emissions from fossil fuel combustion. However, climate-mediated disasters are only one of the myriad health hazards from fossil fuels and industrialization. Pollution and environmental degradation from the same sources that cause climate instability compound harms. Although isolated exposure to air pollution or extreme heat can be lethal, mortality due to the combination is 3 times greater than the sum of the individual effects (3). As the climate crisis worsens, such coexposures will be the norm. Health care providers must prepare to meet these converging and exponential environmental health threats.

The American College of Physicians (ACP), the largest medical specialty organization in the United States, is to be commended for taking a strong position on the necessity for physician leadership and engagement in addressing the climate crisis. In 2016, ACP's position paper on climate change and health was published and was accompanied by a "Climate Change Toolkit" to guide health care provider advocacy and action. The 2022 position paper by Crowley and colleagues, published in *Annals* and developed for the ACP Health and Public Policy Committee, reasserts recommendations to prepare for climate-mediated disease and disasters; increase medical education, training, and research opportunities; and reduce greenhouse gas emissions, particularly from the health care sector (4). Such reassertions underscore the importance of breaking the "harm-treat-harm" cycle, where health care sector emissions cause harm that requires treatment and leads to more harm. The 2022 paper also broadens policy recommendations for action around air and water quality, lead, toxic substances, chemicals, and hazardous waste. Critically, the paper centers recommendations around environmental justice and the empowerment of vulnerable communities—the people hurt first and worst by environmental degradation, pollution, and the climate crisis.

The ACP's recommendations cannot be implemented soon enough. Worldwide, pollution is responsible for an estimated 9 million deaths annually (5). Under current emission scenarios, excess global heat mortality is expected to reach 83 million people by 2100 (6). Internists, medical subspecialists, and the entire health care community are already caring for those harmed by climate and environmental causes. Pollution- and climate-

mediated pathogenesis has been linked to virtually every organ and body system, worsening cardiopulmonary disease, allergies, asthma, infectious diseases, renal disease, maternal fetal outcomes, neurologic conditions, mental health, trauma, and cancer risk. All of this increases demand for care from stressed delivery systems still struggling with the COVID-19 pandemic (7). Improving clinical care will require a greater understanding of the role of environmental exposures in disease processes and advocacy for rapid reductions in dangerous exposures. Even small actions can provide significant benefit—a 10% reduction in air pollutants could prevent 66 000 deaths annually in the United States (8). Crowley and colleagues make the case for physician advocacy and argue for strengthening the U.S. Environmental Protection Agency to ensure that toxic substances are controlled and air and water quality standards are based on robust health-gain science, free from political or industry interference. For effective action, ACP must continue to follow such policy recommendations with concrete plans to ensure that they are realized.

The paper highlights the health co-benefits that would flow from a clean energy transition, particularly for marginalized communities, which include reduced deaths from heat, air pollution, water pollution, and chemical pollution and improved health from active transport, sustainable agriculture, and sustainable food production and consumption practices. However, a case could be made for bolder and more detailed policy recommendations, specifically for the U.S. health care system's role in driving climate change (the system accounts for 8.5% of total U.S. greenhouse gas emissions) and the social and environmental harms associated with health care activities (9). "Primum non nocere" includes enacting strategies to eliminate climate- and environment-induced harms from first-world health care on developing-world populations. Creating sustainable social and physical infrastructure requires systematic accounting and management of potential threats, resources, inputs, outcomes, and concomitant risks, benefits, and harms. The U.S. health care system is far behind other economic sectors in engaging in this critical practice that improves performance, reduces costs, and mitigates harms. We eagerly await ACP's translation of these recommendations into actionable partnerships and research funding advocacy that push our health care system toward sustainability, mitigation, and resiliency.

Cutting-edge, sustainable operations and enterprise are now primarily about detailed accounting of environmental, social, and governance/leadership (ESG) measures utilizing standardized frameworks to set baselines and performance indicators and to demonstrate to stakeholders a commitment to improved stewardship of resources. Without quantitative, verified, and published information, there is no way to mark progress, elucidate best practices, hold entities to account, or eliminate greenwashing (10). Voluntary efforts, such as the U.S.

Department of Health and Human Services' recent Health Care Sector Climate Pledge for voluntary greenhouse gas reductions, are unlikely to create the action needed to meet the magnitude of the crisis. Pledges without required data disclosure only increase greenwashing and delay necessary actions. An alternative that ACP could advocate for that could induce the needed changes are policies that embrace the sustainability accounting revolution and link greenhouse gas reductions to Centers for Medicare & Medicaid Services participation and payment models. Frameworks to operationalize ESG measures are well established and could easily be adopted for health care.

We commend ACP for outlining positions and recommendations that reflect the evolution of science and societal considerations since its initial paper in 2016. As the crisis grows, it will be critical for the leadership of ACP to ensure that such recommendations are effectively translated into action. Only in doing so can we continue to improve the health of all communities in this generation and those to come.

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