










Climate Change and Cancer Care: A Policy Statement From ASCO

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INTRODUCTION

There is incontrovertible and increasing evidence that the changing climate because of the production and burning of fossil fuels has impact on health care delivery and outcomes around the world. Recently, global publications and professional medical societies, including the American Medical Association, have called for action and declared climate change a public health crisis that threatens the health and well-being of all people.¹ The intent of this statement is to affirm ASCO's commitment to addressing the impact of climate change on cancer, with a focus on specific actions guided by our mission pillars of research, education, and quality toward improved cancer prevention, outcomes, and equitable cancer care across the globe.

ASCO represents almost 50,000 global physicians and other health care professionals specialized in cancer treatment, diagnosis, and prevention. ASCO members are dedicated to conducting research that leads to improved patient outcomes and are committed to ensuring that evidence-based practices for the prevention, diagnosis, and treatment of cancer are equitably available to all patients. Therefore, ASCO supports efforts to reduce the uneven public health burden resulting from the changing climate and the burning of fossil fuels by advancing evidence-based policy and practice. In early 2022, ASCO joined the Medical Society Consortium on Climate and Health, an organization that convenes associations representing over 700,000 medical providers to amplify the message that climate change is having an impact on health and wellness and to pursue policies that achieve equitable solutions to promote better outcomes for all.

Amid growing concern of the potential for climate change to exacerbate widening cancer care inequities, this statement builds upon previously endorsed relevant ASCO policies including those on cancer disparities and health equity, cancer prevention, rural health, telemedicine, and skin cancer. ASCO intends to support the cancer community as we examine how to reduce the burden and impact of climate change on our patients and our professional work.

Overview of Climate Change and the Impact on Cancer Care

The earth is warming owing to the accumulation of greenhouse gases in the atmosphere, which are largely attributed to the burning of fossil fuels. The increase in greenhouse gases is associated with increasing levels of carbon dioxide, rising temperatures, rising sea levels, and increasing frequency, intensity, and duration of extreme weather events, such as heat waves, droughts, wildfires, floods, and hurricanes. While these events are disruptive to health care broadly, cancer care, which requires consistent and frequent access to health services, is particularly vulnerable to weather-related disruptions. Such disruptions can stem from damage to local infrastructure, patient ability to access clinical sites, or the availability of oncology professionals to provide care safely. In addition to limiting direct access to care, severe weather events distant from a point of care can lead to disruption in delivery of goods essential for care and thereby have a widespread impact.



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Extreme Weather Events and Cancer Care

Extreme weather events can impede patients' access to cancer care and impair the ability of cancer treatment facilities to deliver it. Historical and emerging data demonstrate that weather-related disruptions are associated with worsened cancer outcomes^{2,3} although further study, which includes long-term outcomes, would advance understanding in this space.

Radiotherapy is of particular concern during hurricanes because of its (usually) daily treatment schedule and dependence on electrical power. Superstorm Sandy offers one example of the treatment delays observed during a hurricane and its aftermath. Sandy hit the New York City area in 2012, flooding the department of radiation oncology at Tisch Hospital and destroying a Linac, tomotherapy unit, computed tomography simulator, stereotactic radiosurgery system, and a high-dose rate brachytherapy suite. In addition, there was a generalized power failure in lower Manhattan. Because of these two factors, radiation treatment could not be delivered for 6 days, prolonging the duration of radiation by a median of 14 additional days. All patients had to be resimulated and replanned because immobilization devices were destroyed in the flood. Of a total of 117 patients who were on treatment before Superstorm Sandy, 16 received additional radiotherapy fractions (median, 2 fractions, range, 1–5) to correct for the treatment break.⁴ Independent of any potential treatment impact, this disruption costs time and money for patients and society while diverting resources from other uses.

A study of the impact of Superstorm Sandy on delivery of gynecologic oncology care at two hospitals (private and public), both of which closed for about 3.5 months, reported that the mean delay in chemotherapy initiation was 7.6 and 21.7 days, respectively, and surgery was delayed by 14.2 and 22.7 days when comparing the private and public hospitals.⁵ These results illustrate not only the problems associated with delivering cancer care when infrastructure collapses but also that it disproportionately affects persons with lower income.

In 2005, Hurricane Katrina caused destruction of specialized equipment, damage to clinical areas, loss of medical records, and evacuation of staff, all of which led to reduced access to cancer care for multiple years after.⁶ Similarly, after Hurricane Maria in 2018, access to radiation therapy was limited in Puerto Rico.⁷ In unadjusted analyses, exposure to Hurricane Katrina was associated with a 15% increase in the mortality rate among adults with breast and lung cancers (hazard ratio [HR], 1.15 and $P < .05$ for both cancer types). With further adjustment for sociodemographic characteristics and cancer stage, associations among all cancer types trended toward higher mortality among cases diagnosed in exposed parishes (counties); however, the only statistically significant association was among breast cancer cases (HR, 1.14; 95% CI, 1.00 to 1.32).⁸

The impact of climate events can also be felt far outside of the immediately affected local region. In the case of Hurricane Maria, the facility responsible for producing most small-volume intravenous fluid bags used in the United States was disabled, leading to widespread shortages.⁹

Relatively few studies have been performed specifically on the effect of treatment delays because of hurricanes on survival although delays in radiation after surgery for cervical, head and neck, and lung cancers, regardless of the reason, have been associated with worse overall survival (OS).^{10–12} One study investigated whether hurricane disasters occurring during radiotherapy were associated with poorer survival for patients with nonoperative locally advanced non-small-cell lung cancer² and suggested significantly worse OS in patients undergoing definitive radiotherapy when a hurricane disaster was declared, compared with matched patients who were not under a hurricane warning (HR for death, 1.19 [95% CI, 1.07 to 1.32]; $P = .001$). The adjusted HR for death increased with the length of the disaster declaration: HR = 1.27 (95% CI, 1.12 to 1.44) for disasters lasting 27 days.

Climate Change and Cancer Risk

Climate change is associated with increased cancer risk through a variety of mechanisms, including increased ultraviolet exposure, risk of exposure to air pollution and toxic chemicals, heat, and reduced access to cancer screening, and most notably through disruption in cancer care itself.¹³ There are a growing number of studies and reports addressing the impact of climate change-related factors, in particular, the air pollution from wildfires and fossil fuel combustion, on cancer incidence.^{14–17} The burning of fossil fuels emits not only greenhouse gases and other carcinogenic elements such as nitrogen dioxide and sulfur dioxide but particulate matter (PM) as well. Fine particles (PM_{2.5}, particles smaller than 2.5 microns or about one thirtieth the width of a human hair) are particularly harmful and are categorized as a group 1 carcinogen by the International Agency for Research on Cancer.¹⁸

Relevant estimates of increased lung cancer incidence have been reported in the literature. For example, air pollution is believed to be responsible for approximately 14% of lung cancer cases worldwide,¹⁹ and a meta-analysis involving numerous lung cancer cohort studies over the past 25 years found that each 10 μm^3 increase in PM_{2.5} exposure is associated with a 14% average increase in lung cancer mortality.²⁰ Recently published findings have also provided a plausible mechanism by which PM_{2.5} promotes lung carcinogenesis.²¹

There have been many meta-analyses and cohort studies suggesting that fossil fuel emission products are related to cancer risks beyond lung cancer.^{22–24} The evidence for these

additional cancer risks is still evolving and in need of further research.

Climate Change and Health Equity

Globally, the largest negative impact of climate change on cancer outcomes is expected to fall on disadvantaged populations, particularly in lower- and middle-income countries (LMICs), where collectively, there has been little societal contribution to the global burden of carbon in the atmosphere and where there generally are fewer resources to manage the climate-related impact.²⁵ This disparity in impact and resilience applies within more economically developed countries such as the United States as well, where vulnerable subpopulations are likely to experience the worst outcomes related to climate change. The worse outcomes related to climate change in these subpopulations are mediated by three factors: increased exposure, increased sensitivity, and decreased adaptive capacity.²⁶

One clear example of the ways in which extreme weather can exacerbate health inequities came from Hurricane Katrina. While many New Orleans residents with resources were able to flee the city before the storm's landfall, many of the elderly and poor inhabitants of the city could not evacuate. In the aftermath of the storm, the number of inpatient hospital beds dropped by more than half and as many as 200,000 people lost their employer-based health coverage.²⁷ The health infrastructure of New Orleans was permanently changed; up to 24% of displaced physicians never returned to practice in Louisiana, further reducing access to care.²⁸ Other acute interruptions in care—owing to pharmacies being closed, medication being lost, and radiation and infusion centers closing for an indefinite time—all adversely affected patients and caused significant stress and other mental health issues.

It is well established that specific populations of color have higher cancer incidence and mortality disparities and studies of social determinants, such as air pollution and neighborhood deprivation on tumor biology, are emerging.²⁹ For example, a recent study observed that patients living in census block groups with moderate annual PM_{2.5} levels had higher odds of having a somatic TP53 mutation than those living in block groups with low PM_{2.5} (odds ratio, 1.66 [95% CI, 1.02 to 2.72]), even after controlling for smoking status, age, sex, race or ethnicity, stage, and histology.³⁰ In addition to altered tumor biology, a recent publication explored the roles of socioeconomic vulnerability and environmental racism in exacerbating cancer care-related concerns in the context of deadly heatwaves, which are projected to increase in frequency and severity.³¹

Globally, disadvantaged populations can also bear increased burdens from climate change. The vulnerable populations within Southeast Asia are expected to grow by 35%–50% over the next decade, for example, and this will increase the risk of inequities in that part of the world.³² The recent

heatwaves in China and India and the catastrophic flooding in Pakistan and northeast India that left large swathes of the countryside underwater in the summer of 2022 are graphic examples of the types of disasters that can potentially become more common as warming continues. It is the vulnerable—the very young and the elderly and patients with advanced noncommunicable diseases—who will be most susceptible to adverse health effects from increasing person-days of heatwaves.³³ Slower moving, but no less serious, are climate change–related trends toward desertification and deforestation that will have a disparate impact on populations residing in LMICs in Southeast Asia, South America, and Africa.³⁴

Oncology's Impact on Climate Change

Health care facilities are heavy users of energy, and medical waste adds a great deal to the carbon footprint. Nationally, the US health care sector emits an estimated 8.5% of all carbon emissions.³⁵ In addition, the limited availability of rural medicine across much of the United States forces many patients to travel long distances—generally burning fossil fuels—to receive health care.³⁶

Recently, life cycle analyses that allow us to estimate the carbon footprint of various medical procedures and processes have been performed. In the operating theater, energy use and single-use waste are major carbon hotspots.³⁷ Energy-saving strategies looking at heating, ventilation, & air conditioning systems would help decrease the biggest driver of surgical energy demands.³⁸ Anesthetic gases also add to the carbon footprint. The long-term impact of annual carbon emissions from American health care delivery is estimated to reach as high as 381,000 years of life lost or lived with preventable disability.³⁹ Radiation therapy often requires daily therapy for many weeks; many patients, often from disadvantaged subpopulations, need to travel great distances to arrive at their treatment centers, which has additional implications for the carbon footprint of the treatment regimen.⁴⁰

Oncology has benefited from significant advances in drug development that have offered great promise for the treatment of advanced disease. Unfortunately, while it may be addressable at acceptable cost, the carbon footprint of that innovation is high. Manufacturing, packaging, transportation, and waste all add CO₂ emissions; however, several pharmaceutical companies are looking at changing certain practices (eg, switching from batch to continuous production) as a less carbon-intensive way to manufacture medications.⁴¹

Impact of Professional Meetings on Climate Change

It is important to acknowledge that large meetings, research symposia, and other professional collaboration and learning opportunities are crucial components of quality care delivery and career development. They are particularly beneficial for

physicians working in underserved and low-resource areas.^{42,43} Nevertheless, the carbon footprint of these events, and related travel, has the potential to be very high, albeit also addressable at acceptable cost.

A study by the International Federation of Medical Students' Associations (IFMA) found that 2–5 tons of CO₂ were emitted by every attendee flying intercontinentally to attend their August 2018 conference.⁴⁴ Hotels and conference venues were found to be substantial emitters because of the intensive energy use of their buildings, operations, and food service, which usually had generous portions of carbon-intensive foods such as meat and cheese and often resulted in as much as 50% of catered food ending up in landfill.⁴⁴

Other studies similarly report on the climate impact of large global professional society meetings which vary in size from several hundred to approximately 24,000 attendees.^{45,46} Conference attendances account for approximately 35% of a scientist's total carbon emissions.⁴⁷ To date, studies which estimate the climate impact of actual or hypothetical in-person meetings estimate air travel alone to produce at least 50,500 tons of carbon emissions for a meeting of more than 24,000 professionals.⁴⁸ These studies also note that the carbon footprint of professional society meetings is further extended by related, carbon-intensive activities such as ground transportation, food services, meeting equipment and operations, and meeting materials. A key opportunity (see below) is to maintain the benefits of in-person meetings while reducing their impact in economically sustainable ways.

FUTURE DIRECTIONS

The current climate crisis and its relationship with cancer care outlined above may seem grim, but there is a path forward and momentum exists to begin to seriously address these issues. On Earth Day 2022, the White House and the Department of Health and Human Services (HHS) launched the Health Sector Climate Pledge, a voluntary commitment to fostering climate resilience by cutting greenhouse gas emissions by 50% by 2030, with the eventual goal of achieving net zero admissions. Given ASCO's commitment to equitable cancer care and its position as a global leader in science and education, we believe that it is important for us to be involved in these efforts. Described below are realistic strategies that can help lower carbon emissions while improving the health of patients with cancer and the health care workforce.

Improving Cancer Care Delivery and Resilience

The oncology community should focus on creating an environmentally sustainable and resilient medical practice. In addition, it is crucial to recognize that often overlooked patient risk factors, such as poverty, financial toxicity, and vulnerability to climate change, can be linked. Certain impacts of climate change—property loss, poor air quality, and

interruption of care—can increase financial hardships that are in turn associated with more financial toxicity.^{49,50}

Extreme weather-related disruptions to care infrastructure have led some cancer centers to develop dedicated preparedness plans, as Memorial Sloan Kettering Cancer Center (MSKCC) did in the aftermath of Superstorm Sandy in 2012.⁵¹ Similarly, New York University Langone Health improved emergency resilience after Superstorm Sandy by installing new flood barriers, drain valves, and steel gates to hold back floodwater.⁵² General emergency preparedness is also increasingly required, to some degree, by federal policy⁵³ although the degree to which this applies to existing cancer care infrastructure and severe weather disruptions is unclear and should be further examined. One recently published study evaluating National Cancer Institute–designated cancer center websites found that only a small minority (<24%) currently contain information on climate-driven emergency preparedness.⁵⁴ The authors conclude that while comprehensive cancer centers could serve as research and knowledge hubs related to emergency preparedness and climate resilience, much more effort will be needed to realize this goal.

The largest proportions of health care–related carbon emissions come from hospitals, physicians' services, and prescription medications. Oncology care is closely linked to these areas, and creation of an environmentally sustainable cancer care model can serve as a prototype for other medical specialties. For example, in radiotherapy, it is possible that through more sustainable patient transportation, hypofractionation, or optimization of the number of fractions in appropriate situations or through wider use of telemedicine visits for follow-up, the carbon footprint of radiation treatments could be lessened.^{55,56} Medical oncologists can also play a role in lowering carbon emissions by decreasing travel to infusion centers through selecting an oral medication over an intravenous alternative when appropriate or by selecting less energy-consuming infusion schedules if available,⁵⁷ assuming that efficacy is not sacrificed. Future life cycle analyses of particular regimens will aid clinicians in selection of greener choices. Similarly, greater use of telemedicine for routine follow-up visits has the potential to decrease patient transportation to the office.⁵⁸ ASCO supports revision of financial incentives related to telemedicine to improve cancer health equity and access to cancer care.⁵⁹

Cancer care delivery systems need to begin by evaluating current practices, including a comprehensive assessment of carbon emissions across oncology service lines (medical oncology, radiation oncology, surgical oncology, palliative care, hospitals, clinics, chemotherapeutics, cancer research, etc).⁵⁵ Strategies for decreasing waste, reprocessing single-use surgical equipment, and more sensibly scheduling procedures might be able to help bring down the carbon footprint until the medical system can be more fully decarbonized.

Other areas for both further research and implementation pertaining to oncology service lines include the environmental impact of oral and infused chemotherapy waste, the environmental impact of radiation therapy, and reducing waste in surgery and radiation. Comprehensive assessment of the impact of oncology care on the environment is needed. Resources are available through organizations dedicated to advancing sustainable operations and transforming health care, and these have already been instrumental in helping some health systems transition to greener operations.⁶⁰

For example, MSKCC recently began greening operating rooms to improve sustainability while also generating substantial savings to the institution.⁶⁰ Health systems such as Kaiser Permanente and Boston Medical Center have similarly lowered energy usage, reduced emissions, and improved the sustainability and efficiency of their operations through greening of their infrastructure.^{52,61} A recently published study reviewed publicly accessible sustainability plans of the National Cancer Institute–designated Cancer Centers and their affiliated organizations to understand the involvement Cancer Centers have in their organization’s sustainability efforts.⁶² The study found that while most centers’ affiliated organizations have publicly accessible sustainability plans, only a minority (17%) of centers independently report on their sustainability efforts. The findings bring forth the need to increase engagement between Cancer Centers and their organizations regarding sustainability plans and a need for greater transparency in publicizing those plans.

Large-scale progress toward sustainability and resilience cannot be attained without collaboration between the oncology workforce and our patients. Policy development and implementation that meets HHS’s goals outlined in the Health Sector Climate Pledge will benefit greatly by proceeding alongside grassroots efforts to achieve evidence-based environmental sustainability in oncology care.^{49,50}

Improving Meetings and Conferences

As suggested above, there are opportunities to green large meetings, so their benefits are intact, while their impact is reduced. Measures to reduce both emissions and waste related to large professional meetings have been proposed^{63,64} and include selecting meeting locations that minimize combined attendee travel; prioritization of venues certified in environmental sustainability programs; and indication of which meeting hotels are implementing sustainability measures and how they are performing on an overarching program, such as the Hotel Carbon Measurement Initiative, among others. Catering options would include limiting the use of single-use items, such as plastic bottles, single-use coffee cups, and event merchandise; requesting minimal packaging from all suppliers; continuing to provide robust virtual attendance options; and offering carbon offsets as an optional purchase with registration or on-site.⁴⁴

ASCO’s meetings have adopted many of these measures while continuing to seek additional opportunities for efficiency. Similar steps are being taken by other organizations,

TABLE 1. Select US Public Policy Positions on Climate Change and Health

Society	Year	Policy/Position Statement
American Society for Radiation Oncology	2023	ASTRO Climate Change Statement ⁶⁷
American Medical Association	2022	AMA Adopts a New Policy Declaring Climate Change a Public Health Crisis ⁶⁸
International Association for the Study of Lung Cancer	2022	Air Pollution and Lung Cancer—The IASLC Position Statement ⁶⁹
American Psychiatric Association	2019	American Psychiatric Association: Position Statement on Mental Health and Climate Change ⁷⁰ American Psychiatric Association: Action Proposal on Divestment ⁷¹
American College of Preventive Medicine	2019	American College of Preventive Medicine—Climate Change Policy Recommendations ⁷²
Infectious Disease Society of America	2018	IDSIA Policy on Preparing for the Infectious Diseases Complications Related to Climate Change ⁷³
American Academy of Dermatology	2018	American Academy of Dermatology Position Statement On Climate and Health ⁷⁴
American College of Emergency Physicians	2018	Policy Statement: Impact of Climate Change on Public Health and Implications for Emergency Medicine ⁷⁵
American College of Physicians	2016	Climate Change and Health: A Position Paper of the American College of Physicians ⁷⁶
American Academy of Pediatrics	2015	American Academy of Pediatrics—Global Climate Change and Children’s Health ⁷⁷

Adapted from the Medical Society Consortium on Climate and Health; see the website for a complete list.⁷⁸

TABLE 2. ASCO Policy Recommendations to Address the Impact of Climate Change on Cancer Incidence, Care, and Outcomes

Recommendations by Category
Research recommendations
Public and private research funders should encourage research into climate change and fossil fuels with respect to their impact on cancer through RFIs, grants, and other mechanisms
Public and private research funders should support work to explore the impact of and potential solutions to cancer disparities and health inequities related to climate change
Public and private research funders should support studies on emissions (including scope 3 emissions) and carbon footprint from the health care sector
Cancer care stakeholder recommendations
Convene virtual roundtables and other opportunities to identify remaining knowledge gaps and define a research agenda to better understand the impact of climate change in oncology, with explicit focus on cancer incidence, outcomes, care delivery, and cancer health equity. These opportunities should be aimed at both domestic and international audiences, wherever appropriate
Health systems should seek to implement geographically appropriate climate resiliency plans, using best practices identified in sources such as the US Climate Resilience Toolkit. These resources should include information for low-resource settings both domestically and internationally
Continuing medical education should additionally seek to improve cancer care providers' knowledge of the science of climate change; the risks that climate change poses to cancer incidence, outcomes, and care delivery; and how to counsel patients on how to protect themselves from the health risks posed by climate change
Health systems should work with industry partners to identify opportunities to create cost-neutral efficiencies to minimize the carbon footprint of cancer care, such as a life cycle analysis (sourcing to waste) of all aspects of cancer care delivery and ways to reduce environmental impact while maintaining or improving quality of care
Identify opportunities, where appropriate, to include recommendations in clinical practice guidelines for reducing the carbon footprint of cancer care
Institutions and organizations should work with industry partners to develop strategies to decrease the carbon footprint of national and international meetings
Regulatory/agency recommendations
HHS and the OCCHE should continue investing in resources and supports to help communities and cancer care providers accelerate their work to reduce carbon emissions and increase climate resilience
CMS should update the Emergency Preparedness rule to include oncology-specific considerations
Advocacy recommendations
Cancer care professionals, both individually and collectively, are encouraged to advocate for climate change adaptation and mitigation policies and to communicate about the health benefits of addressing climate change in objective, simple language to their community and policymakers
Support legislation that seeks to increase funding for programs examining the impact of climate change on cancer risk, outcomes, and care delivery, with a particular emphasis on impact to underserved and most vulnerable populations

Abbreviations: HHS, Health and Human Services; OCCHE, Office of Climate Change and Health Equity; RFI, request for information.

including the American Thoracic Society, World Gastroenterology Organization, and many others.^{64,65}

Health Care Policy Momentum to Address Climate Change

On January 27, 2021, President Biden directed the Secretary of HHS to establish an Office of Climate Change and Health Equity (OCCHE) to address the impact of climate change on the health of the American people. On August 30, 2021, under the direction of the Assistant Secretary for Health, OCCHE was established as part of the Office of the Assistant Secretary for Health in the Immediate Office of the Secretary.

Exercising powers of convening, coordination, and collaboration, the OCCHE serves as a department-wide hub for climate change and health policy, programming, and analysis, in pursuit of environmental justice and equitable health outcomes. The office also facilitates the use of regulatory and statutory powers of HHS to address matters affecting disadvantaged communities and people on the front lines of the climate crisis. The office works alongside community-based organizations, nongovernmental organizations, academia,

business, and industry, along with state, tribal, local, and territorial governments, to define and implement strategies, conduct strategic outreach and communications, and train and empower community residents.

Federal health systems are obligated by Executive Order 14057 to use 2008 as the baseline year for their emission reductions, demonstrate a reduction in emissions by 50% by 2030, and achieve net zero by 2050. Health sector organizations have been asked to take a voluntary pledge to lower their greenhouse gas emissions and build a more climate resilient infrastructure. The establishment of OCCHE and its calls to action demonstrate further need for health care professionals to develop a platform to act when regulatory and legislative opportunities arise.

The Role for ASCO and Other Medical Specialty Societies

In early 2022, ASCO joined the Medical Society Consortium on Climate and Health, an organization that convened associations representing over 700,000 medical providers to amplify the message about the impact climate change is having on health and to pursue policies that achieve

equitable solutions to promote and protect health. ASCO is an organizational signatory of the Consortium's consensus statement,⁶⁶ recognizing the need to reduce the use of fossil fuels to limit global climate change. Many Consortium member societies have also published their own policy positions related to climate change and health (Table 1).

The effects of climate change on cancer care outcomes and policy should be evaluated and communicated to our stakeholders and key policymakers. It is generally assumed that the cancer care workforce knows about the danger of climate change, but data to support this hypothesis are limited; an assessment of the awareness of our oncology care community is needed to enable organizations (including ASCO) to address any educational gaps. Cancer care stakeholders, including patient groups, professional societies, hospital systems, and manufacturers, should collaborate where possible.

To that end, ASCO's broad policy recommendations relevant to policymakers and other cancer care stakeholders are presented in Table 2.

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In conclusion, the eminent pathologist Rudolf Virchow is remembered for his remarkable medical discoveries; however, he was also an ardent believer in social determinants of health and the importance of physicians being attuned to how social factors affected human health and well-being.⁷⁹ Given the unique challenges that climate change poses for human health on a global scale, oncologists and other health care workers should be at the forefront of measures to mitigate environmental damage, adapt to the changing environment, and protect the equitable access to cancer care for all patients.

In this statement, ASCO has provided important information, analysis of the cancer care provider's role in climate change, and examples and opportunities for practical change. Climate change can seem an impossibly big and complex problem, but the oncology community is no stranger to large challenges. ASCO encourages all interested stakeholders to assess their ability to make a difference in these issues to both minimize cancer incidence and ensure that patients with cancer can receive the best possible care and achieve optimal outcomes.

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Disclosures provided by the authors are available with this article at DOI <https://doi.org/10.1200/OP.23.00637>.

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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Open Payments is a public database containing information reported by companies about payments made to US-licensed physicians ([Open Payments](#)).

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