Whereas, The most recent report of the Intergovernmental Panel on Climate Change (IPCC) found that “human-induced climate change is already affecting many weather and climate extremes in every region across the globe”\(^1\); and

Whereas, The first installment of the IPCC's Sixth Assessment Report observed that “global surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered,” and “global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO2 and other greenhouse gas emissions occur in the coming decades"\(^1\); and

Whereas, Limiting global warming to 1.5°C is dependent upon reaching net zero carbon dioxide emissions globally by around year 2050, as well as a significant reduction in non-carbon dioxide drivers\(^1\); and

Whereas, The deleterious health implications of climate change are well-characterized and range from heat-related illness and death to vector-borne diseases to food- and water-borne illnesses\(^2,3\); and

Whereas, Between 2000 and 2017, there were 158 hospital evacuations in the United States, 55.2% of which required the evacuation of more than 100 patients, and 72.2% of these evacuations were due to natural, climate-sensitive events such as hurricanes (65 evacuations), wildfires (21 evacuations), floods (10 evacuations), and storms (8 evacuations)\(^4,5\); and

Whereas, Extreme weather events precipitated and exacerbated by climate change have myriad negative repercussions for the healthcare system, such as causing health facility damage and closures, transportation disruptions, power outages, displacement of health professionals, supply chain disruptions, and overcrowding of hospitals\(^5,6\); and

Whereas, The detrimental effects caused by climate change are inequitably distributed and disproportionately borne by marginalized and minoritized populations due to more substantial exposures and less capacity to mitigate the dangers of global warming\(^7,8\); and

Whereas, Inequities in access to healthcare, transportation infrastructure, energy production resources, and spending on climate mitigation and resilience measures drive the disparate impacts of climate change on vulnerable communities, resulting in reduced capacity to respond to its dangerous effects\(^7,12\); and

Whereas, Older adults, Black and Indigenous populations, people with chronic illnesses or mobility challenges, geographically isolated communities, socioeconomically disadvantaged populations including low-income countries, and children are particularly vulnerable to poorer
health outcomes due to the harmful impacts of climate change, and children will suffer the longest exposures to these effects\textsuperscript{3,7,10,12,13}; and

Whereas, Climate justice has been defined as “a local, national, and global movement to protect at-risk populations who are disproportionately affected by climate change,” recognizing that there are grave disparities between the communities most responsible for generating its destructive repercussions and those most burdened by its adverse effects\textsuperscript{10,12,13}; and

Whereas, Heat-related mortality, including deaths from heat stress, heatstroke, and heat-related exacerbations of cardiovascular and respiratory disease, in people older than 65 years has increased by 53.7% in the past 20 years (resulting in 296,000 deaths in 2018), and people with disabilities and pre-existing medical conditions are most likely to be impacted\textsuperscript{8}; and

Whereas, Rising temperatures endanger the global food supply, with the global yield potential for major crops such as maize, winter wheat, soybean, and rice decreasing from 1981 to 2019 by 1.8-5.6%, intensifying under-nourishment and malnutrition with the most significant impacts on low- and middle-income countries already suffering from high rates of food insecurity\textsuperscript{8}; and

Whereas, The United States healthcare system is a major contributor to greenhouse gas emissions and its injurious impact on the climate is escalating, with emissions derived from the United States health sector increasing by six percent from 2010 to 2018, when the greenhouse gas and toxic air pollutant emissions from the health system caused the loss of 388,000 disability-adjusted life-years\textsuperscript{14}; and

Whereas, The healthcare sector is responsible for 4.4% of global greenhouse gas emissions, emitting 2 billion metric tons of carbon dioxide equivalent annually as of 2014, and the United States produces both the highest rate of emissions from its healthcare system (7.6% of its total climate footprint) and the highest total contribution to emissions (546 million metric tons of carbon dioxide equivalent)\textsuperscript{15}; and

Whereas, In 2018, greenhouse gas emissions from the healthcare supply chain comprised over 80% of the emissions from the United States healthcare sector, representing 453 million metric tons of carbon dioxide equivalent, and electric power generation, transmission, and distribution produced 29.4% of greenhouse gas emissions from the United States healthcare system\textsuperscript{14}; and

Whereas, The United States healthcare sector has the highest per capita greenhouse gas emissions of any country worldwide, at 1,693 kilograms of carbon dioxide equivalent per capita\textsuperscript{14}; and

Whereas, Because of the significant contributions of the healthcare sector to global greenhouse gas emissions, the decarbonization of the healthcare system constitutes an imperative to reach net zero emissions by 2050 and improve global health equity\textsuperscript{14,15}; and

Whereas, As noted in the 2020 report of the \textit{Lancet} countdown on health and climate change, “Doctors, nurses, and the broader profession have a central role in health system adaptation and mitigation, in understanding and maximizing the health benefits of any intervention, and in communicating the need for an accelerated response”\textsuperscript{8}; and

Whereas, Extant AMA policy “concurs with the scientific consensus that the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant” (H-135.938), “urges Congress to adopt a comprehensive, integrated natural resource and energy utilization policy that will promote more efficient fuel use and energy production” (H-135.977),
and "supports initiatives to promote environmental sustainability and other efforts to halt global climate change" (H-135.923); and

Whereas, The AMA has committed to exploring environmentally sustainable practices for the distribution of the Journal of the American Medical Association (D-135.968) and moving "in a timely, incremental, and fiscally responsible manner, to the extent allowed by their legal and fiduciary duties, to end all financial investments or relationships (divestment) with companies that generate the majority of their income from the exploration for, production of, transportation of, or sale of fossil fuels" (D-135.969); and

Whereas, The AMA currently lacks the organizational capacity to engage in health-oriented climate advocacy that meets the scale of the global climate crisis; therefore be it

RESOLVED, That our American Medical Association: (1) Declare climate change an urgent public health emergency that threatens the health and well-being of all individuals; (2) Aggressively advocate for prompt passage of legislation and policies that limit global warming to no more than 1.5 degrees Celsius over pre-industrial levels and address the health and social impacts of climate change through rapid reduction in greenhouse gas emissions aimed at carbon neutrality by 2050, rapid implementation and incentivization of clean energy solutions, and significant investments in climate resilience through a climate justice lens; (3) Study opportunities for local, state, and federal policy interventions and advocacy to proactively respond to the emerging climate health crisis and advance climate justice with report back to the House of Delegates; and (4) Consider the establishment of a longitudinal task force or organizational unit within the AMA to coordinate and strengthen efforts toward advocacy for an equitable and inclusive transition to a net-zero carbon society by 2050, with report back to the House of Delegates. (Directive to Take Action)

Fiscal Note: Not yet determined

Received: 05/11/22

References:
RELEVANT AMA POLICY

Global Climate Change and Human Health H-135.938
Our AMA:
1. Supports the findings of the Intergovernmental Panel on Climate Change’s fourth assessment report and concurs with the scientific consensus that the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant. These climate changes will create conditions that affect public health, with disproportionate impacts on vulnerable populations, including children, the elderly, and the poor.
2. Supports educating the medical community on the potential adverse public health effects of global climate change and incorporating the health implications of climate change into the spectrum of medical education, including topics such as population displacement, heat waves and drought, flooding, infectious and vector-borne diseases, and potable water supplies.
3. (a) Recognizes the importance of physician involvement in policymaking at the state, national, and global level and supports efforts to search for novel, comprehensive, and economically sensitive approaches to mitigating climate change to protect the health of the public; and (b) recognizes that whatever the etiology of global climate change, policymakers should work to reduce human contributions to such changes.
4. Encourages physicians to assist in educating patients and the public on environmentally sustainable practices, and to serve as role models for promoting environmental sustainability.
5. Encourages physicians to work with local and state health departments to strengthen the public health infrastructure to ensure that the global health effects of climate change can be anticipated and responded to more efficiently, and that the AMA’s Center for Public Health Preparedness and Disaster Response assist in this effort.

Global Climate Change - The "Greenhouse Effect" H-135.977
Our AMA: (1) endorses the need for additional research on atmospheric monitoring and climate simulation models as a means of reducing some of the present uncertainties in climate forecasting; (2) urges Congress to adopt a comprehensive, integrated natural resource and energy utilization policy that will promote more efficient fuel use and energy production; (3) endorses increased recognition of the importance of nuclear energy's role in the production of electricity; (4) encourages research and development programs for improving the utilization efficiency and reducing the pollution of fossil fuels; and (5) encourages humanitarian measures to limit the burgeoning increase in world population.

AMA Advocacy for Environmental Sustainability and Climate H-135.923
Our AMA (1) supports initiatives to promote environmental sustainability and other efforts to halt global climate change; (2) will incorporate principles of environmental sustainability within its business operations; and (3) supports physicians in adopting programs for environmental sustainability in their practices and help physicians to share these concepts with their patients and with their communities.

Implementing AMA Climate Change Principles Through JAMA Paper Consumption Reduction and Green Health Care Leadership D-135.968
Our AMA will continue to explore environmentally sustainable practices for JAMA distribution.
AMA to Protect Human Health from the Effects of Climate Change by Ending its Investments in Fossil Fuel Companies D-135.969

Our AMA, AMA Foundation, and any affiliated corporations will work in a timely, incremental, and fiscally responsible manner, to the extent allowed by their legal and fiduciary duties, to end all financial investments or relationships (divestment) with companies that generate the majority of their income from the exploration for, production of, transportation of, or sale of fossil fuels.

BOT Rep. 34, A-18

AMA to Protect Human Health from the Effects of Climate Change by Ending its Investments in Fossil Fuel Companies H-135.921

1. Our AMA will choose for its commercial relationships, when fiscally responsible, vendors, suppliers, and corporations that have demonstrated environmental sustainability practices that seek to minimize their fossil fuels consumption.

2. Our AMA will support efforts of physicians and other health professional associations to proceed with divestment, including to create policy analyses, support continuing medical education, and to inform our patients, the public, legislators, and government policy makers.

BOT Rep. 34, A-18

Stewardship of the Environment H-135.973

The AMA: (1) encourages physicians to be spokespersons for environmental stewardship, including the discussion of these issues when appropriate with patients; (2) encourages the medical community to cooperate in reducing or recycling waste; (3) encourages physicians and the rest of the medical community to dispose of its medical waste in a safe and properly prescribed manner; (4) supports enhancing the role of physicians and other scientists in environmental education; (5) endorses legislation such as the National Environmental Education Act to increase public understanding of environmental degradation and its prevention; (6) encourages research efforts at ascertaining the physiological and psychological effects of abrupt as well as chronic environmental changes; (7) encourages international exchange of information relating to environmental degradation and the adverse human health effects resulting from environmental degradation; (8) encourages and helps support physicians who participate actively in international planning and development conventions associated with improving the environment; (9) encourages educational programs for worldwide family planning and control of population growth; (10) encourages research and development programs for safer, more effective, and less expensive means of preventing unwanted pregnancy; (11) encourages programs to prevent or reduce the human and environmental health impact from global climate change and environmental degradation; (12) encourages economic development programs for all nations that will be sustainable and yet nondestructive to the environment; (13) encourages physicians and environmental scientists in the United States to continue to incorporate concerns for human health into current environmental research and public policy initiatives; (14) encourages physician educators in medical schools, residency programs, and continuing medical education sessions to devote more attention to environmental health issues; (15) will strengthen its liaison with appropriate environmental health agencies, including the National Institute of Environmental Health Sciences (NIEHS); (16) encourages expanded funding for environmental research by the federal government; and (17) encourages family planning through national and international support.


Climate Change Education Across the Medical Education Continuum H-135.919

Our AMA: (1) supports teaching on climate change in undergraduate, graduate, and continuing medical education such that trainees and practicing physicians acquire a basic knowledge of the science of climate change, can describe the risks that climate change poses to human health, and counsel patients on how to protect themselves from the health risks posed by climate change; (2) will make available a prototype presentation and lecture notes on the intersection of climate change and health for use in undergraduate, graduate, and continuing medical education; and (3) will communicate this policy to the appropriate accrediting organizations such as the Commission on Osteopathic College Accreditation and the Liaison Committee on Medical Education.

Res. 302, A-19
Support the Health Based Provisions of the Clean Air Act H-135.950
Our AMA opposes legislation to weaken the existing provisions of the Clean Air Act. 
Res. 417, A-03; Reaffirmation A-05; Reaffirmation I-11; Modified: CSAPH Rep. 1, A-21

Environmental Protection and Safety in Federal Facilities H-135.985
The AMA urges physicians to contribute to the solution of environmental problems by serving as knowledgeable and concerned consultants to environmental, radiation, and public health protection agencies of state and local governments.

Clean Air H-135.991
(1) The AMA supports setting the national primary and secondary ambient air quality standards at the level necessary to protect the public health. Establishing such standards at the level necessary to protect the public health. Establishing such standards at a level "allowing an adequate margin of safety," as provided in current law, should be maintained, but more scientific research should be conducted on the health effects of the standards currently set by the EPA.
(2) The AMA supports continued protection of certain geographic areas (i.e., those with air quality better than the national standards) from significant quality deterioration by requiring strict, but reasonable, emission limitations for new sources.
(3) The AMA endorses a more effective hazardous pollutant program to allow for efficient control of serious health hazards posed by airborne toxic pollutants.
(4) The AMA believes that more research is needed on the causes and effects of acid rain, and that the procedures to control pollution from another state need to be improved.
(5) The AMA believes that attaining the national ambient air quality standards for nitrogen oxides and carbon monoxide is necessary for the long-term benefit of the public health. Emission limitations for motor vehicles should be supported as a long-term goal until appropriate peer-reviewed scientific data demonstrate that the limitations are not required to protect the public health.

Reducing Sources of Diesel Exhaust D-135.996
Our AMA will: (1) encourage the US Environmental Protection Agency (EPA) to set and enforce the most stringent feasible standards to control pollutant emissions from both large and small non-road engines including construction equipment, farm equipment, boats and trains; (2) encourage all states to continue to pursue opportunities to reduce diesel exhaust pollution, including reducing harmful emissions from glider trucks and existing diesel engines; (3) call for all trucks traveling within the United States, regardless of country of origin, to be in compliance with the most stringent and current diesel emissions standards promulgated by US EPA; and (4) send a letter to US EPA Administrator opposing the EPA’s proposal to roll back the "glider Kit Rule" which would effectively allow the unlimited sale of re-conditioned diesel truck engines that do not meet current EPA new diesel engine emission standards.
Res. 428, A-04; Reaffirmed in lieu of Res. 507, A-09; Reaffirmation A-11; Reaffirmation A-14; Modified: Res. 521, A-18

Human and Environmental Health Impacts of Chlorinated Chemicals H-135.956
The AMA: (1) encourages the Environmental Protection Agency to base its evaluations of the potential public health and environmental risks posed by exposure to an individual chlorinated organic compound, other industrial compound, or manufacturing process on reliable data specific to that compound or process; (2) encourages the chemical industry to increase knowledge of the environmental behavior, bioaccumulation potential, and toxicology of their products and by-products; and (3) supports the implementation of risk reduction practices by the chemical and manufacturing industries.
Sub. Res. 503, A-94; Reaffirmation I-98; Reaffirmed: CSAPH Rep. 2, A-08; Reaffirmation I-16

Assurance and Accountability for EPA’s State Level Agencies H-135.924
Our AMA supports requiring that the United States Environmental Protection Agency (EPA) conduct regular quality assurance reviews of state agencies that are delegated to enforce EPA regulations.
Environmental Preservation H-135.972
It is the policy of the AMA to support state society environmental activities by:
(1) identifying areas of concern and encouraging productive research designed to provide authoritative
data regarding health risks of environmental pollutants;
(2) encouraging continued efforts by the CSAPh to prepare focused environmental studies, where these
studies can be decisive in the public consideration of such problems;
(3) maintaining a global perspective on environmental problems;
(4) considering preparation of public service announcements or other materials appropriate for
public/patient education; and
(5) encouraging state and component societies that have not already done so to create environmental
committees.
Res. 52, A-90; Reaffirmed: Sunset Report, I-00; Modified: CSAPh Rep. 1, A-10; Reaffirmed: CSAPh
Rep. 01, A-20

Green Initiatives and the Health Care Community H-135.939
Our AMA supports:
(1) responsible waste management and clean energy production policies that
minimize health risks, including the promotion of appropriate recycling and waste reduction;
(2) the use of ecologically sustainable products, foods, and materials when possible;
(3) the development of products that are non-toxic, sustainable, and ecologically sound;
(4) building practices that help reduce resource utilization and contribute to a healthy environment;
(5) the establishment, expansion, and continued maintenance of affordable, accessible, barrier-free, reliable, and clean-energy public transportation; and
(6) community-wide adoption of 'green' initiatives and activities by organizations, businesses, homes,
schools, and government and health care entities.
CSAPh Rep. 1, I-08; Reaffirmation A-09; Reaffirmed in lieu of Res. 402, A-10; Reaffirmed in lieu of: Res.
504, A-16; Modified: Res. 516, A-18; Modified: Res. 923, I-19

Synthetic Gasification D-135.977
Our AMA will encourage the study the health effects of clean coal technologies including synthetic
gasification plants.
Res. 514, A-12

Air Pollution and Public Health D-135.985
Our AMA: (1) promotes education among its members and the general public and will support efforts that
lead to significant reduction in fuel emissions in all states; and (2) will declare the need for authorities in
all states to expeditiously adopt, and implement effective air pollution control strategies to reduce
emissions, and this position will be disseminated to state and specialty societies.
Res. 408, A-08; Reaffirmation A-14

Support of Clean Air and Reduction in Power Plant Emissions H-135.949
Our AMA supports (1) federal legislation and regulations that meaningfully reduce the following four major
power plant emissions: mercury, carbon dioxide, sulfur dioxide and nitrogen oxide; and (2) efforts to limit
carbon dioxide emissions through the reduction of the burning of coal in the nation's power generating
plants, efforts to improve the efficiency of power plants and continued development, promotion, and
widespread implementation of alternative renewable energy sources in lieu of carbon-based fossil fuels.
Res. 429, A-03; Reaffirmation I-07; Reaffirmed in lieu of Res. 526, A-12; Reaffirmed: Res. 421, A-14;
Modified: Res. 506, A-15; Modified: Res. 908, I-17

Research into the Environmental Contributors to Disease D-135.997
Our AMA will (1) advocate for greater public and private funding for research into the environmental
causes of disease, and urge the National Academy of Sciences to undertake an authoritative analysis of
environmental causes of disease; (2) ask the steering committee of the Medicine and Public Health
Initiative Coalition to consider environmental contributors to disease as a priority public health issue; and
(3) lobby Congress to support ongoing initiatives that include reproductive health outcomes and
development particularly in minority populations in Environmental Protection Agency Environmental
Justice policies.
Pollution Control and Environmental Health H-135.996
Our AMA supports (1) efforts to alert the American people to health hazards of environmental pollution and the need for research and control measures in this area; and (2) its present activities in pollution control and improvement of environmental health.

AMA Position on Air Pollution H-135.998
Our AMA urges that: (1) Maximum feasible reduction of all forms of air pollution, including particulates, gases, toxicants, irritants, smog formers, and other biologically and chemically active pollutants, should be sought by all responsible parties.
(2) Community control programs should be implemented wherever air pollution produces widespread environmental effects or physiological responses, particularly if these are accompanied by a significant incidence of chronic respiratory diseases in the affected community.
(3) Prevention programs should be implemented in areas where the above conditions can be predicted from population and industrial trends.
(4) Governmental control programs should be implemented primarily at those local, regional, or state levels which have jurisdiction over the respective sources of air pollution and the population and areas immediately affected, and which possess the resources to bring about equitable and effective control.

Protecting Public Health from Natural Gas Infrastructure H-135.930
Our AMA recognizes the potential impact on human health associated with natural gas infrastructure and supports legislation that would require a comprehensive Health Impact Assessment regarding the health risks that may be associated with natural gas pipelines.
Res. 519, A-15

Support Reduction of Carbon Dioxide Emissions D-135.972
Our AMA will (1) inform the President of the United States, the Administrator of the Environmental Protection Agency (EPA), and Congress that our American Medical Association supports the Administration’s efforts to limit carbon dioxide emissions from power plants to protect public health; and (2) working with state medical societies, encourage state governors to support and comply with EPA regulations designed to limit carbon dioxide emissions from coal fired power plants.
Res. 421, A-14; Modified: Res. 506, A-15

EPA and Green House Gas Regulation H-135.934
1. Our AMA supports the Environmental Protection Agency’s authority to promulgate rules to regulate and control greenhouse gas emissions in the United States.
2. Our AMA: (a) strongly supports evidence-based environmental statutes and regulations intended to regulate air and water pollution and to reduce greenhouse gas emissions; and (b) will advocate that environmental health regulations should only be modified or rescinded with scientific justification.
Res. 925, I-10; Reaffirmed in lieu of Res. 526, A-12; Reaffirmed: Res. 421, A-14; Appended: Res. 523, A-17

Clean Air H-135.979
Our AMA supports cooperative efforts with the Administration, Congress, national, state and local medical societies, and other organizations to achieve a comprehensive national policy and program to address the adverse health effects from environmental pollution factors, including air and water pollution, toxic substances, the "greenhouse effect," stratospheric ozone depletion and other contaminants.
Sub. Res. 43, A-89; Reaffirmed: Sunset Report, A-00; Reaffirmation I-06; Reaffirmation I-07; Reaffirmed in lieu of Res. 507, A-09; Reaffirmed in lieu of Res. 509, A-09; Reaffirmed: CSAPH Rep. 01, A-19