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## *Impact of Climate Change on Public Health and Implications for Emergency Medicine*

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Climate change will continue to have significant and possibly growing impacts on human health, health care systems, and public health infrastructure. These impacts can be direct and include: injuries and illnesses resulting from extreme weather events, exacerbation of existing health conditions among individuals due to environmental changes, and the emergence of new pathogens. Indirect effects include food and water insecurity, mental health issues, and increased poverty. Climate change also potentiates disease exposure by promoting the geographic expansion of non-endemic pathogens and disease vectors, and exposing populations to novel, previously uncharacterized pathogens. These effects can overwhelm material and personnel resources within healthcare systems, emergency services, and related government agencies. Increased utilization of emergency medical care in numerous forms is likely to result.

Thus, climate change is directly relevant to the practice of emergency medicine. An appropriate response to these unprecedented changes will require awareness, training, resources, and enhanced preparedness. Emergency preparedness and improved surge capacity will necessitate robust cooperation among pre-hospital and hospital infrastructure, government public health and safety agencies, and providers of emergency care. By taking a comprehensive approach that includes climate-resilient healthcare infrastructure, enhanced disease surveillance, and improved emergency response capabilities, the healthcare sector, including emergency medicine can better prepare for and respond to the health impacts of climate change, ultimately improving population health outcomes and system resilience.

Therefore, the American College of Emergency Physicians (ACEP) supports collaborating with public health agencies and other stakeholders to:

- Raise awareness of the short- and long-term implications of climate change on population health and its effect in the practice of emergency medicine including enhanced patient awareness of medical conditions that may be exacerbated due to weather related events, applicable mitigation strategies, and early recognition and management of

exacerbations.

- Advocate for policies and practices to mitigate and address the effects of climate change on human health, health care system preparedness, and public health infrastructure.
- Expand and improve regional surveillance systems of health care utilization and emerging diseases associated with climate change, and natural disaster-related injury.
- Collaborate with local government authorities to develop and improve emergency preparedness protocols to coordinate prehospital, intrahospital, and hospital-based emergency services during weather or natural disaster related events.
- Advocate for initiatives to reduce the carbon footprint of emergency departments and their affiliated institutions through energy conservation, health care waste reduction and/or recycling, carbon capture initiatives, and purchase contract negotiations that encourage environmental responsibility in the medical product manufacturing and supply chain.
- Advocate for and engage in research examining the effects of climate change on human health, health care system access and capabilities, and public health infrastructure as well as identification of and mitigation for specific vulnerable groups
- Advocate for research to understand the uneven impact of climate change across different topographies and geographies and create solutions that equitably address gaps in surveillance systems, public health infrastructures, and emergency care response capabilities.
- Encourage cooperation with stakeholders to identify local and regional disaster vulnerabilities and develop specific, regional collaborative action plans, including redundant contingency planning, distribution of resources, and interhospital and interagency cooperation.
- Encourage physician training, independent expertise, and certification in disaster medicine for collaboration with local and regional public health and safety services and other relevant government agencies tasked to address extreme weather events or other natural disasters.

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