

REPORT 3 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (I-08)
Global Climate Change and Human Health

SUMMARY

Objective. To review the current scientific information on climate change, discuss some predicted health effects facing various populations as a result of global climate change and modified weather patterns, and offer new policy recommendations for our American Medical Association.

Methods. Sentinel reports on climate, global climate change, and human health were relied on for the majority of this report, including the four Intergovernmental Panel on Climate Change (IPCC) assessment reports, and reports from the World Health Organization and the Environmental Protection Agency (EPA). Additional English-language articles were selected based on their relevance to enhancing the scientific understanding of global climate change and related health effects on humans, and to identify gaps in knowledge, including information on climate modeling. Lastly, the Web sites of several scientific authorities on global climate change and human health such as (but not limited to) the EPA, the National Aeronautics and Space Administration, and the IPCC were consulted for their specific content related to global climate change.

Results. Significant advances have occurred in the understanding of global climate change, and a large volume of published literature on this topic has appeared, particularly in the last half-century. The IPCC and other scientific researchers assert that warming of the climate system is unequivocal, and is evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level. Many health effects attributable to changes in the global climate system have been noted. These health effects are based on specific predicted climate-related events, including the effects of heat waves, climate events related to changes in water levels (either extreme flooding or droughts), and increases in infectious and/or vector-borne diseases. Additional modeling has been conducted to estimate more of the downstream health effects of global climate change, including changes in food yields and water supplies that could result in malnutrition and or dehydration.

Conclusions. Ongoing global climate change is now widely accepted by the majority of scientists, climatologists, and meteorologists, and human activity is accelerating this process. The extent of climate change will depend on many factors; most notably, changes in global greenhouse gas emissions. Anthropogenic contributions to global climate change exist, and the IPCC reports make a compelling case for linkage between these events. The effects of global climate change may be widespread, with impacts on ecosystems, land composition, sea levels, weather patterns, and ice coverage. The potential exists for devastating events with serious health implications, including extreme heat and cold events, flooding and droughts, increases in vectors carrying infectious diseases, and increases in air pollution. The health effects from these events should be of concern to the medical community and require action.

1 RECOMMENDATIONS

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3 The following statements by the Council on Science and Public Health were adopted by the AMA
4 House of Delegates as directives and policies at the 2008 Interim Meeting.

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6 Our American Medical Association (AMA):

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- 8 1. Support the findings of the Intergovernmental Panel on Climate Change's fourth
9 assessment report and concurs with the scientific consensus that the Earth is undergoing
10 adverse global climate change and that anthropogenic contributions are significant. These
11 climate changes will create conditions that affect public health, with disproportionate
12 impacts on vulnerable populations, including children, the elderly, and the poor. (New
13 HOD Policy)
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15 2. Support educating the medical community on the potential adverse public health effects of
16 global climate change and incorporating the health implications of climate change into the
17 spectrum of medical education, including topics such as population displacement, heat
18 waves and drought, flooding, infectious and vector-borne diseases, and potable water
19 supplies. (New HOD Policy)
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21 3. (a) Recognize the importance of physician involvement in policymaking at the state,
22 national, and global level and supports efforts to search for novel, comprehensive
23 approaches to mitigating climate change to protect the health of the public; and (b)
24 recognize that whatever the etiology of global climate change, policymakers should work
25 to reduce human contributions to such changes. (New HOD Policy)
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27 4. Encourage physicians to assist in educating patients and the public on environmentally
28 sustainable practices, and to serve as role models for promoting environmental
29 sustainability. (Directive to Take Action)
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31 5. Encourage physicians to work with local and state health departments to strengthen the
32 public health infrastructure to ensure that the global health effects of climate change can be
33 anticipated and responded to more efficiently, and that the AMA's Center for Public
34 Health Preparedness and Disaster Response assist in this effort. (Directive to Take Action)
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36 6. Support epidemiological, translational, clinical and basic science research necessary for
37 evidence-based global climate change policy decisions related to health care and treatment.
38 (New HOD Policy)