

SECOND THOUGHTS

The Importance of Physician Climate Advocacy in the Face of Political Denial

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Abstract

Most physicians accept the general scientific discoveries about anthropogenic global warming and its dangers. Occasional denial by individual physicians of climate change can be readily answered by reference to the scientific consensus. But widespread, organized, political denial of climate change is hazardous to physicians' advocacy for an effective public health and health care response to climate change. This article assumes that physician climate advocacy is ethical and celebrates the many forms of health climate advocacy already under way. It concludes by drawing attention to measures that can scale up and strengthen the health care system's organized response to growing climate health hazards.

Introduction

During the last half century and even before, the globe has been warming rapidly while climate science has grown in precision and evidentiary support [1-5]. Meanwhile, physicians and health care organizations have been advocating policies to respond to climate change. However, there remain some clinicians who deny the science and consequential implications of climate change, which raises questions about how to handle climate denial by physicians and others. I first outline some issues in identifying climate denial and responding to it. I then examine and celebrate climate advocacy by physicians. A third section identifies a type of denial—"political denial"—inimical to progress in mitigating climate change. Finally, I note a few action items for strengthening health care climate advocacy and response.

Climate Change Denial

The main conclusions of scientific climate theory and observation are straightforward [6-9]:

1. Average global atmospheric, ocean, and soil temperatures are rising rapidly.
2. This warming is almost entirely attributable to human activity.
3. As emissions continue, rising temperatures are causing increasingly widespread and harmful consequences. Among the consequences that have been identified and attributed to climate change are: ocean level rise and acidification, strong storms, floods, epic excessive heat events, drought and famine, forest fires,

spreading vectors and diseases, human and other migration, armed conflicts, governance crises, and species extinctions [10–19]. Climate and health disasters in recent years show that health consequences are significant and growing [11, 17, 18].

Climate skeptics and denialists claim that at least one of the three elements of the scientific consensus is false. Very few still claim that temperatures are not rising [20]. A few others deny that science proves that temperatures will continue to rise. Others understand that the warming is real but think it has not been shown to have a significant anthropogenic component. Still others admit that scientists are right on both points but claim that the warming is inconsequential, in the balance beneficial, easily manageable, or unfixable [21, 22]. I don't count among denialists those who hold that it is unreasonable to try to do much about climate change at present because our energies should be devoted to more immediate priorities including social justice and international poverty [23]. Similarly, some think that continued economic growth will solve the problem and that environmental harms far in the future should not be regarded as significant now. Such arguments have been refuted [24–27], but they go beyond the science of climate change.

Are there denialists among physicians? The George Mason University Center for Climate Change Communication 2014 and 2015 surveys of physicians in three national medical organizations showed that most physicians accept all three consensual points about climate change; few physicians confidently deny elements of climate science [28]. Notably, one such denialist was Michael Crichton [29]. The *Journal of American Physicians and Surgeons* published a notorious denialist article by four nonmedical scientists that was widely circulated [30]. When *American Family Physician* published an article on [physician climate communication with patients](#) [31], several physicians replied with fierce denial [32–36]. One physician leads organizations that have posted denialist materials [37]. Several physician denialists are named on websites [22, 38, 39].

Since most physicians accept the scientific consensus and medicine is a scientific profession, it is not difficult to reply to deniers when addressing medical audiences. In my experience, physician denial of the third conclusion of climate science is rare. Once the first two points are grasped—that warming is occurring and is manmade—the connections to health and welfare follow readily. For those who assert skepticism, probably all that is needed is to remind the audience that the consensus is well established and has only increased over the decades [2, 3, 40–42]. It might also be useful to compare the functions of skepticism in medical practice with skepticism regarding climate science. Imbued with their everyday need to consider nuanced human bodily, social, and moral complexities when treating individual patients, some clinicians and medical educators maintain a spirit of doubt and uncertainty in clinical reasoning and evidence [43–46]. They might then transfer their habitual skepticism to climate science. But the main points of climate science are based on fundamental thermodynamic and

geophysical principles and supported by a vast body of evidence from many scientific disciplines [1, 7]. Weather forecasting is analogous to cancer survival prediction in that prediction is uncertain for a given scenario [47, 48], but the three main points of climate science listed above, much like some of the basics of physiology, describe reliable categories of evidence [2, 7].

As far as the ethics of denial goes, a personal reaction of denial by individual physicians, if transient, is ethically unproblematic. Such a reaction warrants compassion rather than criticism, because the three points of climate science constitute very bad news indeed [4, 49-52]. Physicians, like patients, might react to bad news with denial. Later, we move on through other psychological stages toward acceptance and hope [53, 54]. There remains, however, a dangerous form of denial that I call here political denial. Before discussing it, I outline the good news about medical [advocacy for climate change mitigation](#).

Medical Advocacy

The health professions have been proactive regarding climate change since 1989 [55, 56]. The American Medical Association (AMA) issued a 2008 statement, "Global Climate Change and Human Health," supporting climate science; it recommends research regarding health impacts of climate change, climate education in medical school curricula, physician policy advocacy, public and patient education, role modeling, and cooperation with public health agencies and officials [57]. In the decade since, the World Medical Association, various medical specialty organizations, and others have made statements underlining the urgent need to reduce fossil fuel consumption, to switch to alternate energy sources, and to take additional climate change mitigation steps [58-68]. Activist health professional organizations, such as Physicians for Social Responsibility, the Medical Society Consortium on Climate and Health, the Center for Climate Change and Health, Health Care Without Harm, and others [69-76] are advocating for urgent mitigation of what the *Lancet* and University College London Institute for Global Health Commission termed "the biggest global health threat of the 21st century" [77].

Prominent climate change mitigation activities undertaken by health professions organizations and others include:

- Promoting public and legislative support for international, national, and regional policies to mitigate climate change [57, 63-76, 78];
- Promoting a "co-benefits" approach, which promotes policy and lifestyle measures that improve public health while reducing carbon dioxide emissions [79-81];
- Promoting the use of the social costs of carbon in decisions to estimate climate change costs [81-84];
- Expanding medical school curricula on climate and global change [65, 85, 86];
- Promoting climate awareness among health professionals [76];

- [Greening health care facilities](#), especially with regard to energy efficiency, and switching from fossil fuels to alternative energy sources at these facilities [87-90];
- Preparing health care facilities to withstand extreme weather events [91].

Health professions climate advocacy organizations have developed an extensive body of expertise, evidence, measures, efficiencies, communication techniques, tools, designs, and the like. Any organization new to these issues will find ample resources for moving ahead [65, 92-95].

Political Denial of Climate Science

Political denial is the denial of climate science by business, government, and policy organizations for political and economic reasons. This denial is sometimes intended to hinder the development of alternative energy sources and to promote continuing use of fossil fuels, that is, to defend vested interests [21, 22, 96-101]. Sometimes these organizational views are associated with political and economic ideologies that require local, national, and international management regimes to solve problems [97, 100, 102, 103]. Some of these organizations have been aggressive in their attacks on scientists and in their propaganda efforts [103-108].

Also dangerous are the current US administration's moves to close down government climate science research programs and remove posted evidence [109-112]. Some recent high-level cabinet appointees are deniers (and among them the physician Ben Carson) [113]. This process echoes George Orwell's *1984* dystopia, which featured the "memory hole" as a major tool for destroying information to maintain political oppression [114, 115]. These Orwellian practices, together with the president's announced plan to withdraw the US from the United Nations 2015 Paris climate change mitigation agreement [116-118], constitute a highly dangerous political configuration. Since climate change mitigation and adaptation are urgently needed, and failure to act is likely to kill millions of people over the next decades, some term current US climate policy a "crime against humanity" [119].

Political denial threatens the commitment of health professionals to widen and strengthen their advocacy because:

- Administrators and legislators are more likely to avoid mentioning climate change and to withhold support from policies to prepare for and mitigate climate change.
- Health care advocates, administrators, lobbyists, and fund-raisers who promote improvements in access, funding, and public resources for health care are less likely to dilute the immediacy of their primary message with long-term climate concerns [120].
- Preparations for the climate disasters ahead require foresight and investment. If an agency denies climate change, it can allow [disaster preparation](#) to slide. When

the disaster comes, administrators can say, “Who knew?” Denial thus prepares the irresponsible to shrug off blame [36, 121].

More Work to Do

There is so much research and advocacy regarding climate and health that it is impossible for anyone to keep track of it all. One might then ask, If health care professionals are committed to advocating for mitigating and adapting to climate change, why does more need to be done? Unfortunately, the high level of activism among health professionals may foster unwarranted optimism.

For all the efforts of activists globally, business and government efforts are far from on track to achieve sufficient emission reductions [122–124]. Moreover, despite the good examples and leadership of some health care systems [86, 125, 126], the vast majority of health care systems have a long way to go to implement similar policies [127]. Bringing good ideas up to scale is challenging. And when challenging measures are needed, denial takes its toll by weakening our resolve [21, 99].

What more needs to be done? Here are a few concrete suggestions:

- If they have not done so already, the academic accrediting and examining agencies can review medical curricula for climate content.
- Hospitals and clinics can examine the range of their offerings to emphasize therapies that have the best ratio of patient benefit to environmental and climate cost. They can also begin to eliminate environmentally costly therapies with significant side effects, controversial efficacy, or overly wide and unproven indications [128–133].
- Physicians who wish to lead as role models can move into smaller quarters, live nearer work, and bicycle or walk to work [57].
- Those in health care philosophy and ethics can connect and harmonize principles of environmental ethics with those of health care ethics [134–137].
- Associations can hold more virtual national meetings (this includes ethics associations [138]) and, in any case, limit professional air travel [139].
- Innovative research can engage in precautionary prior evaluation of its likely environmental impact once scaled up to widespread use [140].

The AMA, like other medical associations, can devote more attention to promoting climate change mitigation. The AMA should appoint at least one climate sustainability specialist to coordinate work on scaling up the health care system’s response to climate change. Its sustainability division could include climate change in its existing programs on practice sustainability and physician satisfaction. It could advocate reducing environmental, material, and energy costs in specifying its responsibilities to promote scientific knowledge, competent practice, and public health improvement as expressed in its *Code of Medical Ethics* [141]. And it could cooperate regionally, nationally, and locally with other appropriate medical professional organizations in devoting resources to

climate change mitigation advocacy.

Political denial creates obstacles, but political winds shift over time while climate change is here to stay. Physicians should remain hopeful about fulfilling their strong ethical obligation to address public health risks [142–144]. There is much good work under way, and exciting endeavors remain ahead for those concerned about the health hazards of climate change [145, 146].

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