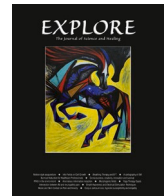


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Health and the Environment

Climate change and the voice of healthcare professionals^{☆,☆☆}

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EXPLORE's "Health and the Environment" column seeks to highlight areas of intersection between environmental issues and integrative health and healing.

For nearly a decade, I have had the privilege of working within the global community of health professionals striving to change the narrative on climate change. The goal of that work has been to help people understand that climate change is, first and foremost, the dominant public health challenge of our time. Below is a snapshot of some of the wonderful things that have been accomplished by this community. (Limited by space, please note that this list is no more than a tiny window into the work being done. And this view is largely US-centric.)

- Building off the early (and on-going) work of Health Care Without Harm and state-based grassroots groups of health professionals that formed years ago in Minnesota, Vermont, Ohio, and Virginia, organizations like the Medical Society Consortium on Climate and Health, the Global Climate and Health Alliance, and the Global Consortium on Climate Health and Education emerged as new focal points for education and activism.¹ The state-based group effort also expanded, with groups currently up-and-running in 25 states.² These entities have been bringing the voice of health care professionals into meetings in Congress, state legislatures, town halls, professional societies, medical schools, Chambers of Commerce, universities - and much more.
- During the Global Climate Action Summit in 2018, health organizations representing more than 5 million health professionals and 17 thousand hospitals across more than 120 countries released a global "Call-to-Action on Climate and Health."³ That document reverberated across the planet and helped to push the World Health Organization into declaring that climate change had become the leading threat to human health in the 21st century.⁴
- In April 2022, the US Department of Health and Human Services and the White House announced an initiative designed to accelerate the push within the US health care sector to reduce the enormous greenhouse gas emissions being emitted.⁵ By June 30th, more than 60 of the largest US hospital and health sector companies (representing more than 600 hospitals) had committed to the pledge.⁶ When the updated list is tallied and announced in November, that number will be far higher, largely because of the push that health care professionals and many others are participating in.

These things happened because the voice of healthcare professionals has been growing in breadth and sophistication. When a physician, nurse, public health researcher, therapist, or other health professional speaks up at a meeting or a rally, talks to the press, or provides testimony at a hearing, people pay attention. Many people who will not give the time of day to environmental advocates will sit up and listen when a health professional speaks. I lost track long ago of how many times I had seen this happen. Nevertheless, the work has only just begun. In keeping with what we witnessed in the fight over tobacco and smoking that played out for decades, a concerted and cynical effort by the fossil fuel industry has been undermining climate science and scientists. One of the most powerful countervailing forces to that oblivious blindness has been the voice of healthcare professionals.

Starting in 1988, NASA's James Hansen began testifying before U.S. Congressional committees about the impacts of greenhouse gas emissions, and what a warming world would look like. With postgraduate degrees in physics and astronomy and a stellar track research record, Hansen was the Director of the Goddard Institute of Space Studies. Not surprisingly given NASA's much deserved reputation, the work of Hansen and his global colleagues caught the attention of both sides of the aisle in Congress. Within a few years, U.S. Department of Defense officials joined in warning Congress of the massive destabilizing threats of climate change. The commercial reinsurance industry followed, forecasting the havoc that climate change would bring to the insurance and financial sectors. All these conversations drove the development of a series of strong bipartisan bills in the '90s and early 2000s. But, except for the funds included in the American Recovery and Reinvestment Act after the 2008 financial crisis, the big legislative ideas hit a solid brick wall funded and built by the fossil fuel industry and were not passed.

Fast-forward to 2019, decades after James Hansen began sounding the alarm, sixteen-year-old Greta Thunberg stood before the most powerful people on the planet at the annual Davos World Economic Forum and said: "I want you to act as if our house is on fire. Because it is."⁷ After 30-plus years, an eminent scientist had been replaced by an extraordinary 16-year-old in speaking truth to power. (Meanwhile, Hansen had been arrested numerous times as he heroically refused to be side-lined and silenced.)

If you look at the annual financial statements of successful for-profit companies, you will see staggering amounts spent on marketing. Business leaders make the rational decision to spend, knowing that

* 19–1 Jan/Feb 2023** Style/Format note - See Volume 18, Issue 11, Pages 129–130 for style/formatting.

<https://doi.org/10.1016/j.explore.2022.10.008>

Available online 28 October 2022
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marketing is highly effective in influencing people to make irrational purchasing decisions. (Although most of us as consumers will say we are not affected by those messages.) The effectiveness of marketing techniques increased dramatically after World War II, built upon rapid advancements in the understanding of decision making, judgment, and behavioral economics. One of the more well-known people behind that research is Daniel Kahneman, who won the 2002 Nobel Prize in Economic Sciences for his work challenging the assumption of rational thinking as the foundation of modern economic theory and decision making in general⁸. The work of Kahneman and others on cognitive biases and similar concepts explains a lot about why people have been so easily misled on climate change. Even before the mobile phones, apps and the Internet took over, the shift from a rational to an irrational response to the threat of climate change was evident in virtually every sphere of public discourse, and especially in state legislatures and Congress. The signs were (and are) easy to spot if you had (have) the appropriate antennae up.

For decades, there have been numerous infamous examples of individuals in the public spotlight promoting the theory of climate change as fiction. There can be no doubt that future Americans will look back on these demonstrations of scientific ignorance with enormous painful disdain. A second example permeates statements made by reporters and meteorologists in the aftermath of major hurricanes and typhoons. The reports typically use hedging language about whether climate change has anything to do with record breaking wind speeds and flooding. Yet for decades, climate scientists have stated definitively that hurricanes and typhoons would dramatically increase in severity as the climate warmed. (What they were less sure about was whether the frequency of storms would increase.) If the same reporters had a family member who had been diagnosed with lung cancer after years of smoking, would they have said “tobacco may have had something to do with the diagnosis?” Another example: homeowners continue to buy homes (or rebuild after storms) in coastal areas located below sea-level and without being able to purchase flood insurance. Insurance companies have made the rational decision to stop selling flood insurance in these areas because the data clearly shows that sea levels are rising (again, as predicted by the climate change modeling for decades). Yet, homeowners continue to make those highly irrational bets. More broadly, a “healthy” economy relies on sustained growth - and sustained growth requires a healthy planet that humans can live on.

These behaviors are not simply natural societal outcomes that arise from the built-in processes that Kahneman and his peers uncovered about human thought. The woeful lack of action on climate change over the decades has been fueled by intentional and very well-funded campaigns to sow seeds of doubt about climate change – both its causes and impacts.⁹ That attack on the climate scientists relied on many of the tactics (and some of the same individuals) who so effectively fought the evidence linking smoking and cancer.^{10,11} The fossil fuel industry, whose annual revenues are in the trillions of dollars, has been running the most devastating disinformation campaign in human history. When cities and states began to understand the societal costs engendered by that deceit, they initiated a gigantic wave of litigation against the fossil fuel companies.¹²

On the positive side, the size and content of the recently passed Inflation Reduction Act (IRA) is a very welcome event. But given that we are far behind where we would have been if more lawmakers had listened to scientists like James Hansen, the IRA is now merely a small down payment. And so, the United States needs to build on that success immediately. That brings this back to where we started - the voice of healthcare professionals.

In the 2020 book “The Upswing” by Robert Putman and Shaylyn Romney Garrett, the two authors make a highly compelling and detailed argument, based on the last 150 years of U.S. history, that grassroots activism is the engine that has driven major societal change in this country. Students of world history will recognize in their analysis a story of grassroots impact that has been repeated over and over.. The new

chapter we need to add to that story is about how the healthcare sector helped move the world forward in creating a new equitable energy economy at the beginning of the 21st century. For that vision to become reality, we need more health professionals to join in the conversation, as soon as possible. The lion’s share of the work ahead will continue to be done by volunteers, each person fitting in a few hours here and there as best they can.

If you are a health professional, it is likely you are reluctant to jump in because you face demands and pressures that people outside health care do not understand. However, the on-the-ground evidence says you can do a lot of good without committing to lots of time and big deliverables. First, note that you do not have to develop an expertise in clean energy policies or programs. No matter where you live, there are environmental entities filled with smart, dedicated people who have worked with local (or national) legislators to prioritize a set of policies and programs to pursue. If you live in one of the states that has an organized group of health professionals, those groups will have work in the pipeline that they need help on. You will also find plenty of high impact regional or national initiatives looking for health professionals who are willing to help.¹³

You will need to become familiar with health-related talking points that allow you to effectively support specific programs or policies. That preparation is not as time consuming as you might think. Start by looking at why climate change is such an enormous health threat, spend an hour or two looking through the work being done by the Center for Disease Control’s Health and Climate team.¹⁴ The magnitude of the health challenge will become immediately obvious. A second critical idea to recognize is that, once you are armed with basic information, you will be the de facto health impact expert in virtually any setting you walk into. Here is a typical example. Suppose you are a pediatrician or pediatric nurse who has been asked to provide support for a clean transportation program. After reviewing the annual “State of the Air” report from the American Lung Association, you will have the data needed to very effectively argue that the clean transportation program will mitigate respiratory illness among children living within the communities that have received failing grades for air quality.¹⁵ This kind of data and much more - including research papers, presentations, messaging tips, op-eds, and videos - has been collected and posted by the climate and health organizations noted in this essay. With few exceptions, this content is meant to be reused energetically and widely - in keeping with the overall goal to educate everyone everywhere as fast as possible. At the same time, the publication of critical new research that can be applied to specific policy/programs (designed to decarbonize the economy) is accelerating quickly. It is no longer uncommon to find well-researched papers and reports specific to the policy/program of interest with a few clicks on the web.

Most importantly, you will find a community of people who will welcome you into the work. People who will help you make a big impact, very quickly. As Margret Meade said, “*Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it’s the only thing that ever has.*” By joining in with this community, at whatever level you can, you will find that action in community is the best antidote for climate anxiety. Please jump in. We need you.

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References

- 1 The websites for these organizations: www.hcwh.org, www.medsocietiesforclimatehealth.org, www.climateandhealthalliance.org, www.publichealth.columbia.edu/research/global-consortium-climate-and-health-education.
- 2 To find the websites and information for the state groups, go to <https://states.ms2ch.org/>.
- 3 See <https://noharm-uscanada.org/articles/news/us-canada/health-care-leaders-unveil-climate-commitments-global-call-action>.
- 4 See <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>.
- 5 The US health care sector generates 8.5% of the nation's carbon pollution emissions, resulting in increasingly severe health impacts. If the health care sector was a country, it would rank 13th globally for greenhouse gas emissions.
- 6 The pledge and current public information can be found at: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/30/fact-sheet-health-sector-leaders-join-biden-administrations-pledge-to-reduce-greenhouse-gas-emissions-50-by-2030/>.
- 7 The full text of the speech can be found in this article: "Our house is on fire", The Guardian, 1/25/19.
- 8 Kahneman Wins Nobel Prize. Princeton University, https://pr.princeton.edu/home/02/1009_kahneman/hmcap-b.html.
- 9 For example, "How decades of disinformation about fossil fuels halted U.S. climate policy", National Public Radio, 10/27/21.
- 10 "Merchants of Doubt", documentary film directed by Robert Kenner, 2014.
- 11 "America Misled: how the fossil fuel industry deliberately misled Americans about climate change", George Mason University, Center for Climate Change Communication, 2019.
- 12 "States and cities scramble to sue oil companies over climate change", Washington Post, 9/14/2020.
- 13 For example, see these sites: medical Society Consortium on Climate and Health (<https://medsocietiesforclimatehealth.org/take-action/>), the Citizen Climate Lobby Health Team (<https://community.citizensclimate.org/groups/home/961>), and Third Act (<https://thirdact.org/working-groups/health/>).
- 14 See this CDC site: <https://www.cdc.gov/climateandhealth/effects/default.htm>.
- 15 These annual ALA reports are available at: <https://www.lung.org/research/sota>.