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Advocacy to support climate and health policies: recommended actions for the Society of Behavioral Medicine

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Abstract

Climate change poses serious threats to public health and is exacerbating health inequities. Policy changes are essential to mitigate climate change impacts on human and planetary health. The purpose was to describe recommendations by the Policy and Advocacy Subgroup of the Society of Behavioral Medicine (SBM) Climate Change, Behavior Change and Health Presidential Working Group (PWG). The Policy and Advocacy subgroup was comprised of experts in public health, climate policy, and health behavior change, who worked together to identify priorities and develop recommendations. We worked under the premise that building political will for climate policy action is the most urgent goal, and we recommended promotion of citizen advocacy for this purpose. Because citizen advocacy is a set of behaviors, SBM members can use behavioral science to identify and scale up interventions, working collaboratively with communities targeted for marginalization. Recommendations for SBM included establishing an organizational home for climate and health work, providing training and resources, engaging in climate advocacy as an organization, and networking with other organizations. Recommendations for a proposed SBM Climate and Health Committee, Council, or Special Interest Group included developing trainings and resources, seeking opportunities for networking and collaborations, and identifying a research agenda. Individual behavior changes are insufficient to address climate change; policy actions are needed. SBM and similar organizations can support their members to work in developing, evaluating, and scaling up advocacy interventions for action on climate policy to magnify the power of the health and medical sectors to protect planetary and human health.

Lay summary

Increasing advocacy for climate protection policies is a top priority. Recommendations are made for research and advocacy engagement by the Society of Behavioral Medicine and its members.

Keywords: Environment, Sustainability, Climate change, Behavior change, Policy, Advocacy

Implications

Practice: Because citizen advocacy is a set of behaviors, behavioral change expertise, skills, and tools can be applied to develop, evaluate, and scale-up citizen advocacy interventions, targeting policy changes that benefit health and climate.

Policy: The Society of Behavioral Medicine should partner with other health organizations to advocate for health and climate policy priorities as well as provide training in advocacy and strategic communication about climate change and health for its members.

Research: Research is needed to develop, evaluate, and scale up citizen advocacy interventions to prepare as many people as possible to advocate for health and climate policy priorities.

Climate Change is a Major Public Health Issue

Climate change is the 21st century's most serious threat to public health and wellbeing, worldwide [1,2]. The sharp increase in atmospheric CO₂ and other heat-trapping pollutants over the past century, along with large-scale land use changes, has caused a rise in the mean global temperature of 1.2°C. Global temperature will continue to increase until at least the middle of the current century [3]. In addition to ecosystem and biodiversity damage, global overheating is already harming human health in myriad ways, both direct (through increasingly frequent extreme weather events including heat waves, severe storms, floods and droughts) and indirect (through worsening air pollution, increasing vector-borne diseases, increasingly contaminated water and food, reduced food production and less nutritious foods, mental health impacts, increases in conflict, damaged and destroyed housing and farmlands, and forced migrations) [4, 5] [6]. Every 1/10th of a degree Celsius in additional warming is projected to cause rapidly escalating rates of additional morbidity and mortality that will last many decades or centuries into the future [3]. While a total of 1.5°C of warming is considered by many experts to be the upper limit of what is safe, recent evidence suggests that 1.5 and even 2 degrees of warming are likely to be surpassed in the 21st century without drastic actions on a global scale [3,7].

Climate change is exacerbating long-standing health disparities because individuals from communities targeted for marginalization—many of which have contributed least to the problem—are most affected [6]. (We use the term “communities targeted for marginalization” to reflect the conditions imposed on these communities as the root cause of health inequities. More commonly-used labels (e.g., “marginalized communities”) are thought to further oppress communities through the implication that they are defined by their oppression.) The exacerbation of health disparities applies to both countries and individuals. Low- and middle-income nations are more vulnerable to the health threats of climate change than high-income nations, and within nations, people in low-resource communities are more vulnerable than people in high-wealth communities [2,8,9].

Among the health professional community worldwide, there is growing recognition of the rising threat of climate change [10,11] and increasing interest in addressing it [12,13]. Citing previous successes in reducing health threats such as tobacco

use and the HIV epidemic, the 2015 Lancet Commission on Health and Climate Change stressed the role of health professionals in leading climate change mitigation and adaptation efforts [6]. There have been other more recent calls for the health community to rise to the challenge [14–16].

Recognizing that climate change is a growing public health emergency, a coalition of U.S. health organizations in 2019 developed a policy action agenda on climate, health, and equity, which has now been endorsed by more than 200 health organizations (<https://climatehealthaction.org>). This policy agenda was based on judgments that individual actions are not sufficient to reduce climate change threats, and meaningful policy changes are needed. Increased public demand is essential to achieve widespread adoption and implementation of priority policies. Table 1 lists the ten “priority actions” in that policy action agenda. These recommendations provided a foundation and guided the discussions and recommendations from the Policy and Advocacy subgroup of the Society of Behavioral Medicine (SBM)'s *Climate Change, Behavior Change and Health* Presidential Working Group (PWG).

The Policy and Advocacy Subgroup of the SBM Climate Change, Behavior Change, and Health PWG

In 2019, results of SBM's crowd-sourced presidential initiative *Provocative Questions in Behavioral Medicine* identified climate change as the highest priority of SBM members. The *Climate Change, Behavior Change and Health* Presidential Working Group was convened in collaboration with the National Cancer Institute, engaging experts and stakeholders who were members and non-members of SBM to stimulate research and action at the intersection of climate change, behavior change, and health. As one of five subgroups, the Policy and Advocacy subgroup aimed to develop recommendations to (i) prompt SBM as an institution to support its members to become more engaged and effective climate and health advocates; (ii) engage SBM members in the process of building political will for climate- and health-friendly policies; (iii) promote research and action on citizen advocacy for climate change action; and (iv) recruit partner organizations and jointly develop an infrastructure for advocacy by health professionals.

The Policy and Advocacy PWG subgroup was comprised of experts in public health, climate policy, and health behavior

Table 1 | Ten “Priority Actions” for Climate Advocacy, written by the Medical Society Consortium on Climate and Health

Climate Action For Health	1. Meet and strengthen the commitments the USA made under the Paris Climate Agreement
	2. Transition rapidly away from the use of coal, oil and natural gas to clean, safe, and renewable energy and energy efficiency
	3. Emphasize active transportation in the transition to zero-carbon transportation systems
	4. Promote healthy, sustainable and resilient farms and food systems, forests, and natural lands
	5. Ensure that all U.S. residents have access to safe and affordable drinking water and a sustainable water supply
	6. Invest in policies that support a just transition for workers and communities adversely impacted by climate change and the transition to a low-carbon economy
Health Action for Climate	7. Engage the health sector voice in the call for climate action
	8. Incorporate climate solutions into all health care and public health systems
	9. Build resilient communities in the face of climate change
Financing	10. Invest in climate and health

change (Table 2). During monthly meetings, the members of the Policy and Advocacy PWG subgroup worked together to identify priorities and develop the rationale and recommendations described in this paper. Early career members compiled notes and drafted reports, which were revised and edited by all subgroup members. The Health Equity subgroup was also invited to provide input and to collaborate in developing this manuscript.

Policy and Advocacy for Climate Action

Human activities are driving climate change [3]. There is broad scientific consensus that two goals must be achieved, worldwide, over the next several decades if global warming is to be limited to levels agreed to in the Paris Climate Agreement: (i) greenhouse gas (GHG) emissions must be rapidly reduced and eliminated almost entirely and (ii) atmospheric CO₂ levels must be substantially reduced. There is also widespread scientific agreement that individual adoption of energy-efficient and climate-friendly technologies is insufficient to achieve these goals; evidence-based climate policies, at scale, are required [6]. Building the political will to pass such legislation is essential. The Policy and Advocacy PWG subgroup recommends promotion of citizen advocacy and engagement—including but not limited to health professional advocacy and engagement—to build the grassroots support necessary for implementing policies to mitigate climate change. Because citizen advocacy is a set of behaviors, SBM members can use their behavior change expertise and research skills to identify effective interventions, and then scale them up as part of research or service activities.

Advocacy has been defined as “systematic efforts (as opposed to sporadic outbursts) by actors who seek to achieve specific policy goals” [17]. Across the world, citizen advocacy efforts have helped generate political will to pass and implement legislation for a variety of health issues. For example, anti-smoking advocacy groups influenced legislation and its implementation nationally in multiple countries [18,19], as well as at local (e.g., in municipalities [20]) and institutional levels (e.g., at universities [21]). In the USA, advocacy coalitions have influenced legislation for decriminalization of syringes and other harm-reduction strategies to combat HIV in different states, regardless of local political background [22, 23].

Advocacy efforts have successfully influenced political will to pass and implement legislation for climate change mitigation. In Germany, for example, an advocacy coalition influenced Parliament, which passed legislation to expand renewable sources of energy despite opposition from the nuclear and coal energy industries [24]. At the institutional level, university students’ and faculty’s advocacy efforts have successfully engaged higher education institutions to officially divest from fossil fuels [25]. Theories and models of policy adoption suggest advocacy may be an important precursor of policy implementation [26,27]. However, less is known regarding how to engage individuals in advocacy efforts. Behavioral science may help us to understand and promote broader and more effective engagement in policy-advocacy at the individual level.

Climate Policy and Health Equity

Climate change, policy, and health inequities are closely related. As described in more detail in Nogueira et al.’s paper

Table 2 | Policy and advocacy PWG members

Name	Affiliation	Relevant experience
William Dietz, MD, PhD (Co-chair)	Director, Sumner M. Redstone Global Center for Prevention and Wellness at The George Washington University	Co-chair of the Lancet Commission on Obesity, and senior author on the Commission’s report, entitled <i>The Global Syndemic of Obesity, Undernutrition, and Climate Change</i>
James Sallis, PhD (Co-chair)	Distinguished Professor in the Herbert Wertheim School of Public Health at University of California, San Diego	Research on active, healthy, and sustainable communities; research on citizen advocacy; communicating research to policy makers
John Balbus, MD, MPH	Senior Advisor to the Director, National Institute of Environmental Health Sciences	Over 25 years working on the health implications of climate change; has served as HHS Principal and co-chair of the working group on Climate Change and Human Health for the U.S. Global Change Research Program; currently Interim Director of the new Office of Climate Change and Health Equity within OASH
Edward Maibach, MPH, PhD	Distinguished University Professor and Director, Center for Climate Change Communication, George Mason University	Senior Counsel, Medical Society Consortium on Climate & Health; Board Member, Global Climate & Health Alliance; Co-author, health chapter, 3rd National Climate Assessment
Andrea Mendoza-Vasconez, MPH, PhD (Early Career)	Assistant Professor (Research) in the Department of Behavioral and Social Sciences, Brown School of Public Health	Experience in the development and evaluation of behavioral science-informed health interventions. Research focus on healthy and sustainable behaviors
Elizabeth McLaughlin, PhD (Early Career)	Clinical Psychologist, Lifespan/Alpert Medical School of Brown University; MedStar	Clinical health psychologist and community activist in climate policy

in this issue [28], unjust policies promote and maintain structural racism, which places individuals from communities targeted for marginalization at greater health risk from the threats of climate change. Individuals in communities targeted for marginalization are subject to policies (or lack thereof) that have led to greater exposure, greater sensitivity, and lower adaptive capacity to climate change hazards [29, 30]. For example, with climate-related sea-level rise, inland properties are becoming more desirable and expensive. In the absence of policies designed to ensure equitable access to housing on higher ground, these trends are exacerbating climate-related health disparities and displacement [31]. Moreover, specific climate events may lead to displacement in communities targeted for marginalization, as they did in New Orleans after Hurricane Katrina.

Equitable climate policy (e.g., government regulation of land use and environmental hazards, voting rights, government-sponsored health and social services [32], and equitable distribution of land and food resources [33]) can reduce health disparities or prevent their exacerbation in the face of climate change. At the federal level, the recently introduced Environmental Justice Act of 2019 [34] would help communities influence local policy. The purpose is “to require Federal agencies to address and eliminate the disproportionate environmental and human health impacts on populations of color, communities of color, indigenous communities, and low-income communities” and calls for their inclusion in decision-making about their health. Policies implemented at the local level (e.g., at the city or county level) may be particularly effective and critical in preventing widening health gaps and protecting the health and wellbeing of individuals living in communities targeted for marginalization [35, 6].

Promoting citizen advocacy could engage communities to advocate and pass policies that are critical in the pursuit of climate equity and justice, yet more research is needed to identify effective strategies leading to community engagement. A greater understanding of the effects of systemic racism and marginalization on the health of all members of a community may, for example, help us to activate advocacy efforts, as has occurred in Flint, Michigan, and Standing Rock [36,37]. In developing strategies to promote engagement in citizen advocacy for climate policy change, it is particularly important to collaborate with members from affected communities, incorporating their knowledge gained from lived experiences and their proposed solutions. Research efforts could employ principles such as those from Community-Based Participatory Research (CBPR), which have the goal of reducing health disparities through the development, implementation, and evaluation of interventions in a collaborative process between researchers and community members [38]. As part of this method, research groups and community members work together as equal partners, with leadership opportunities for both throughout the process (from conducting needs assessment, planning, hiring, implementing, evaluating, and disseminating results). The common goals and complementary contributions of research groups, community advocacy groups, and local at-risk communities are synergistic and can lead to effective research and advocacy efforts. Health and medical professionals already value health equity and have demonstrated that engagement in effective partnerships with community members to advance health equity goals is feasible [39–41]. Given the diverse examples of effective

research-community partnerships to promote health-related citizen advocacy [42–46], it is reasonable to adapt the approach to promote advocacy for equitable climate-related policies.

Overall, the central role of structural racism driving climate-related health inequities has not been widely recognized by the behavioral medicine community. In any change efforts, whether research or activism, it is important to name and describe the historical and current aspects of structural racism that are the root cause of present-day health inequities.

The Society of Behavioral Medicine’s Role in Climate Policy Advocacy

Policies mitigating climate change can have beneficial direct and indirect effects on health [6]. Framing these benefits as health benefits, as opposed to environmental benefits, may be more motivating in promoting behavior change [47, 48]. Thus, the expertise of SBM members in promoting health-related behavior change is extremely relevant to promoting engagement in climate policy advocacy.

We recommend SBM and similar organizations provide training in advocacy and strategic communication about climate change for their members, and we encourage SBM members and other health behavior scientists to develop, implement, and evaluate advocacy interventions in the area of climate policy. Advocacy-based interventions have been used in the fields of substance use and smoking cessation, for example, to provide youth with skills to promote policy and environmental changes in support of substance- and smoke-free environments in their schools and communities [42,49,50]. Similar strategies have equipped youth with skills to advocate for policies and built environment changes in their schools and communities in support of healthful eating and physical activity [51–54], reproductive health [55], and healthy environments in general [56,57,43,58].

Among older adults, advocacy training efforts have focused on improving environments that support healthy aging, including healthy nutrition and physical activity [59–62,44]. In addition to youth and older adults, advocacy training programs have targeted health professionals (including physicians and students of dentistry, dental hygiene, pharmacy, and public health) to prepare them to advocate for legislation in support of their patients and communities [63–67]; parents to equip them to advocate for legislation in support of their children with disabilities [68]; and personnel at non-profit organizations to prepare them to advocate for legislation in support of their missions (e.g., reproductive health [69]). Advocacy training has also been used to help communities set and pursue their own health agendas, resulting in improved built environments (e.g., parks) [45,70], and to tackle specific issues such as smoke-free and trash-free environments and availability of healthy foods in the community [46,71,72]. Using a variety of training methods, including workshops, school curricula, fotonovelas, and apps, many of these programs have improved knowledge and skill acquisition, changes in attitude, intention and engagement in advocacy behaviors, enactment of policies supporting health and healthy environments, and individual-level health behavior change.

Despite the promise of policy advocacy training to engage individuals in advocating for healthier environments and supportive policies, there is limited research focusing on the promotion of advocacy to influence political will for policy

change. There is a particular paucity of research examining advocacy training that supports pro-environmental policies and climate change mitigation. Therefore, we recommend SBM members and other behavioral and social scientists conduct research to elucidate behavioral and communication strategies that could be used to mobilize people to advocate for climate change action. We also encourage greater understanding of power dynamics deriving from structural racism and how to use personal privilege to advocate for policies that support health equity while creating space for individuals from affected communities to guide the development and execution of relevant policies and interventions.

The Policy and Advocacy Subgroup of the SBM *Climate Change, Behavior Change and Health* PWG created a set of recommendations to promote and build capacity among SBM members to become climate change advocates, using their credibility as health professionals and their social responsibility. Some recommendations encourage SBM members to undertake research and evaluation to increase political will through citizen advocacy training and support, and then to scale-up the effective citizen advocacy interventions, necessary for population-level impact [73]. By encouraging and assisting SBM members to become citizen advocates and to study citizen advocacy as a set of behaviors, SBM could become a leader of such efforts, especially among organizations of health professionals. These recommendations are appropriate for other behavioral, social, health, and environmental scientists, and we encourage individual scientists and professional organizations worldwide to adapt, adopt, and implement these recommendations, as meaningful worldwide action is urgently needed to prevent the most catastrophic effects of climate change.

We acknowledge that, in the highly politicized environment of the USA, these recommendations may encounter resistance, and researchers may feel inclined to refrain from engaging in research to impact citizen advocacy for fear of political partisanship. However, the advocacy outcomes we recommend are wholly consistent with the overwhelming body of research evidence concluding that the climate crisis was caused and is being exacerbated by human decision-making, and that policy changes are essential to curtail its impacts [3].

Specific Recommendations

The Policy and Advocacy PWG subgroup aimed to generate recommendations to encourage SBM to provide training in advocacy for their members and to engage SBM and its membership to use their behavioral expertise in mobilizing people and research for climate advocacy at multiple levels of governance (institutional, corporate, local, state, and national). With publication of this report, the Policy and Advocacy PWG subgroup is disbanding, with the hope and expectation that a permanent Climate & Health Committee, Council, or Special Interest Group will be established to implement the recommendations described in this paper and to promote and coordinate work conducted or recommended by the other PWG subgroups. Table 3 lists other specific recommended actions for the Society of Behavioral Medicine as an organization, including recommendations in areas of training, outreach, advocacy, and networking. Table 4 outlines specific actions recommended for an SBM Climate and Health Committee, Council, or Special Interest Group to contribute to SBM's evolution into an effective force in building political will for climate change action.

Table 3 | Recommended actions for the Society of Behavioral Medicine to support advocacy for climate and health policies

Establish an organizational home for climate and health work	<ul style="list-style-type: none"> • Establish an SBM Climate and Health Committee, Council, or Special Interest Group to provide ongoing leadership for implementing recommendations from all Presidential Working Group subgroups <ul style="list-style-type: none"> ◦ Call to membership to recruit people who would want to participate
Trainings for members	<ul style="list-style-type: none"> • Provide climate advocacy training to SBM members (e.g., how to have an effective meeting with a policy-maker), supported by a toolkit
Resources for members	<ul style="list-style-type: none"> • Create an ongoing series of policy statements and briefs related to climate and health, with recommended advocacy actions • Create an ongoing climate and health section in <i>Translational Behavioral Medicine</i> • Build a section of the SBM website to support member advocacy on climate and health • Create a “Climate and Health Corner” in the weekly SBM emailed digest or in quarterly SBM Outlook newsletter • Schedule a plenary session at the next annual meeting to explain the rationale for climate and health policy objectives and include presentations from all Presidential Working Group subgroups • Throughout these resources, communicate a commitment to health equity and environmental justice by addressing systemic racism, climate justice, and centering and amplifying marginalized voices among SBM and in community partnerships
Advocacy	<ul style="list-style-type: none"> • Include climate & health topics in SBM's ongoing advocacy efforts with Congressional representatives and staff • Advocate for NIH leadership to develop (a) calls for Proposals on climate and health and climate advocacy and (b) study section(s) that focus on climate and health issues
Networking	<ul style="list-style-type: none"> • Join the Medical Society Consortium on Climate and Health (https://medsocietiesforclimatehealth.org/), and encourage members to become Climate/Health Champions • Join or establish a coalition of organizations with expertise in health behavior to (a) advocate for increased funding for climate, health, and behavioral research; (b) stimulate and support research on advocacy behavior change related to climate change; and (c) disseminate and scale-up promising and effective strategies to mobilize public support for climate-friendly policies

Table 4 | Recommended actions for an SBM Climate and Health Committee, Council, or Special Interest Group

Trainings and Resources	<ul style="list-style-type: none"> • Develop climate advocacy training workshops for SBM members at annual meetings • Develop a resource list of climate-policy-oriented organizations that could be potential partners for SBM member research or advocacy • Encourage and prepare SBM members to be advocates for climate and health policies in their own communities and places of employment, including such issues as plans to become carbon neutral, divesting from fossil fuel industries [25], changing food procurement policies [74], and promoting carbon-neutral transportation [75]
Networking and collaborations	<ul style="list-style-type: none"> • Explore and develop ongoing liaison relationships with climate-focused organizations • Recruit partner organizations and jointly develop infrastructure and projects to advance climate and health advocacy <ul style="list-style-type: none"> ◦ Spearhead collective advocacy efforts (e.g., groups of medical professionals writing white papers) ◦ Leverage group members' networks to build coalitions of organizations working on climate and health policy change
Identify Research Agenda	<ul style="list-style-type: none"> • Review literature and develop a framework that describes the process of promoting citizen advocacy for climate change action • Identify a research agenda to establish effective strategies and messages for citizen advocacy • Develop a list of research questions that SBM members could focus on for their research (e.g., Which communities of practice offer the most leverage to accelerate adoption and implementation of high priority climate/health policies? Does promoting climate change-related individual behavior erode engagement in advocacy?) <ul style="list-style-type: none"> ◦ This could include an inclusive consultation process among SBM members and representatives or partner organizations • Identify potential funders for the research agenda

Conclusion

Climate change is currently causing environmental degradation, morbidity, and mortality worldwide, with disproportionate detrimental effects on individuals from communities targeted for marginalization who contribute the least to greenhouse gas emissions [6]. The worst outcomes of climate change can still be prevented with rapid decisive actions on a global scale, and implementing mitigation strategies is crucial in this endeavor [3]. To highlight ways for SBM members to take action, the Policy and Advocacy PWG subgroup adopted the policy priorities of “The U.S. Call to Action on Climate, Health, and Equity: A Policy Action Agenda” that have been endorsed by more than 200 health and medical organizations. The recommendations of our PWG subgroup are based on prior observations that (i) individual behavior changes are insufficient to reduce climate change, so policy actions are needed; and (ii) building political will to make difficult but necessary policy changes is the most critical need to make progress. Building political will for climate change policies may be one of the most important public health interventions.

As a primary strategy for increasing political will, we propose SBM members work with partners to develop, evaluate, and scale up citizen advocacy training to prepare as many people as possible to advocate for climate policy priorities to government leaders at all levels, as well as to corporate and non-profit decision makers. The citizen advocacy approach can apply the behavior change expertise of SBM members to a new behavioral target, supporting partnerships between researchers and members from communities targeted for marginalization. Incorporating strategies for engaging communities, such as those from CBPR, requires a shift to viewing individuals from communities targeted for marginalization as equal collaborators with valuable knowledge and leadership capacity in all stages of the process. We recommend ways for SBM to

support climate change initiatives through creating a new organizational home for climate action, encouraging members to conduct research and evaluation in citizen advocacy, providing training and support materials to members, and developing new partnerships to amplify SBM's efforts. We believe many of our recommendations are highly relevant to other health organizations, and we encourage all such organizations to adapt, adopt, and implement these recommendations and take other actions to magnify the power of the health and medical sectors to protect planetary and human health from the worst consequences of climate change.

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Compliance with Ethical Standards

Conflict of Interest: Authors Andrea S. Mendoza-Vasconez, Elizabeth McLaughlin, James F. Sallis, Edward Maibach, Elissa Epel, Gary Bennett, Leticia Nogueira, Julian Thayer, and William H. Dietz declare that they have no conflicts of interest to report.

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