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Approaching Climate Change: The Role of State and Territorial Health Agencies

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Climate impacts on human health are an urgent public health issue. The effects of climate change are clear. During the past several years, states and territories have wrestled with extreme temperatures, historic rains and flooding, and the worst wildfire and drought conditions ever recorded. These events have become more severe, more frequent, and more costly in recent years.[1]

State and territorial health agencies (S/THAs), as well as local and tribal health departments, must be prepared for the inevitability of climate-related impacts on human health. They can take direct action in areas where they have authority, and they can help influence other policy actions that protect health. While responsibility for setting and enforcing federal environmental policy largely falls to the US Environmental Protection Agency (EPA) and other federal agencies, state and local agencies can play a significant role in advancing policy. An example of such local authority is actions taken by state governments to move toward 100% clean energy.[2-5] These actions have led to more far-reaching and ambitious regulations than those established by the federal government. S/THAs can continue to take similarly bold, progressive action and work toward mitigating impacts of a changing climate based on sound science and public health impact. In this column, we outline a technical package of capacity building and policy interventions for state and territorial health officials (S/THOs) to address the range of health impacts associated with climate change.

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The authors declare no conflicts of interest.

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DOI: 10.1097/PHH.0000000000001436

Ensuring Adequate Surveillance Capacity

Public health policy must be driven by reliable data. The capacity to systematically collect, manage, analyze, and interpret climate, extreme weather, and related human health data is critical to making informed climate policy and developing effective responses to climate and extreme weather events. The Centers for Disease Control and Prevention's (CDC's) National Environmental Public Health Tracking (EPHT) program, which collects, integrates, and analyzes noninfectious disease and environmental data from a nationwide network of partners, provides a critical platform to guide and evaluate public health actions that can prevent or mitigate the impact of environmental hazards on health. The platform also facilitates identification of trends that may increase our understanding of relationships between environmental hazards and health.[6]

The CDC currently funds 25 states and 1 city to build, operate, and maintain this platform. States that are not participating may not have a sufficient array of environmental surveillance tools to inform effective climate action. One state has taken individual action to develop its own system. Other states that do not have this surveillance capacity could build it into their data modernization efforts. Potential sources of funding may emerge through federal resources (eg, CDC's Environmental Health Capacity Program).

Every S/THA must have an environmental health surveillance system on par with those built through the CDC's EPHT program. Expansion of the CDC's National EPHT Network is critical: increasing the surveillance capacity of S/THAs empowers states and territories to detect and track climate change–related disease and health burdens that are locally relevant.[7]

Enacting and Influencing Public Policy

Interventions that target policy and systems change may be effective in mitigating the health impacts of climate change. While S/THAs may have limited authority to exclusively develop environmental

and climate-related policies, they can creatively and strategically build alliances with their state agency counterparts, community organizations, and the public. Health in All Policies (HiAP) is a collaborative approach that adds a framework for providing evidence-based health and equity considerations to policy and program development in other sectors.[8,9]

S/THAs often work with colleagues in state departments of housing, environment, energy, transportation, and other related partners to provide a health lens to policies and projects under development to improve places where people live, work, and play. Specific climate-related HiAP initiatives include emergency management cooperation, water conservation policies, weatherization policies—such as the Home Energy Assistance Program—and multimodal transportation policies, such as complete streets. A HiAP approach to climate change can lead to policies that improve resilience to the health effects caused by a changing climate.

In the first half of 2020, outdoor air quality improved because of infectious disease mitigation activities that reduced traffic emissions.[10,11] To maintain these gains, S/THOs could use this experience to pursue cross-sector policy making that aims to curtail sources of greenhouse gas emissions. By working with partners on policies that reduce automobile travel such as continued expansions of teleworking or engaging in economic development efforts that incentivize development of clean energy industry, S/THOs can influence policies that prevent, prepare for, and respond to the current and future health impacts of climate change.

In addition to policy-making levers, S/THAs can educate the public about potential health implications of individual and social behaviors, consumption of goods and services, and decision making that may contribute to negative impacts of climate change. Promoting responsible use and protection of natural environments empowers communities to take actionable steps to protect food systems, water supplies, and air quality, which can, in turn, mitigate catalysts of climate change and extreme weather.

Most importantly, health equity and environmental justice must be centrally incorporated into this climate work. As we have seen with countless examples of hurricanes, flooding, and extreme heat events, climate change disproportionately affects communities of color and groups that have been socioeconomically marginalized.[12] Children, seniors, and people with underlying health conditions are at an increased risk for the negative health impacts of climate change.[12] Some S/THAs already take a HiAP approach to address disparities between populations of different racial and ethnic groups, which can easily be employed to increase health equity in their climate-related work. Climate change also stresses our health care infrastructure and delivery systems.

All states and territories have vulnerabilities to climate-related health impacts. Just as state and local health agencies have taken bold action to prevent and mitigate the impacts of environmental hazards such as lead in the past, they are in a position to lead and influence policies that encourage resilience to, and mitigation of, the human health impacts associated with climate change. Climate and health leaders must also stay attuned to the disproportionate impacts climate change will have on people at a greater risk for significant health impacts and encourage equitable policies and programs. Using public health tools such as surveillance and early warning systems, cross-sector partnerships, and proven risk communication and education strategies, S/THAs can work with their state and federal counterparts to inform and influence equitable climate and health policies.

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