

with the worst adolescent reproductive and sexual health outcomes. Persistent disparities by race/ethnicity, socioeconomic status, geography, disability, and gender identity in part reflect gaps in the existing curriculum content. Several organizations (i.e., New Morning Foundation, State Alliance for Adolescent Sexual Health, South Carolina Campaign to Prevent Teen Pregnancy, Advocates for Youth, and the South Carolina Coalition for Healthy Families) continue to play a critical role in advancing sexual health education reform.

These groups already provide community-level capacity (i.e., offer technical assistance, build partnerships across agencies and organizations, and provide resources for students, educators, providers, and activists) and advocate comprehensive sexual health education initiatives that

support sexual health equity among all youths via rights-based policies and empowerment efforts. The South Carolina Department of Education has a responsibility to meet educational and curriculum standards that address sexual and reproductive health that is responsive to the needs of all students. Optimizing sexual health education will involve the development of policies and programs that embrace a comprehensive sexual health education approach, that are inclusive, and that equip students with skills to promote responsible sexual health and well-being. **AJPH**

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Hospitals Should Help Communities Prepare for Climate Change

Tax-exempt hospitals devote more than 400 000 hours annually to community health needs assessments (CHNAs),¹ but generally fail to address important environmental determinants of local population health falling within their influence. Wasting this opportunity is detrimental to public health and hospitals as well as to natural resources in communities, in regions, and worldwide. In particular, too few hospitals help mitigate and adapt to the local health impacts of climate change.

In theory, CHNAs provide a strong vehicle for hospital–public health–environmentalist collaboration in identifying local health needs associated with environmental conditions and in

developing strategies for hospitals to address those needs. Along with the Affordable Care Act's financial incentives for hospitals to manage population health, CHNAs are intended to promote healthier communities and prevent hospital visits. The US Treasury Department's rules for CHNAs broadly define “community health needs” to include “social, behavioral and environmental factors.” Additionally, community members can participate in, review, and use CHNAs. Medical and public health authorities are aligned with this approach and note the major effects of community conditions on population health and hospitals' costs.²

Yet, hospitals have wide discretion in selecting priority needs

and actions. Hospitals' CHNAs overwhelmingly do not prioritize needs related to environmental and other community conditions and frequently do not even consider data on environmental health indicators. Instead, CHNAs mainly focus on access to and quality of health care (factors in population health that hospitals understand best) and implementation strategies within the hospitals' normal scope of activities.³

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Additionally, environmental experts typically are unaware of hospital-focused CHNAs and fail to point hospitals toward environmental threats and strategies. Often, environmental projects, such as shutting coal-fired power plants, remediating toxic wastes, and protecting ecosystems, improve local population health. Some such efforts benefit from the active involvement of health care institutions and professionals. However, too many struggling environmental projects receive no support from local hospitals, despite obvious community health impacts and opportunities to apply health care expertise and influence.

COMMUNITY HEALTH NEEDS AND CLIMATE CHANGE

Hospitals and environmentalists should use CHNAs more effectively to address the local health consequences of climate change and other environmental threats.

Recent American Academy of Pediatrics (AAP) and American College of Physicians (ACP) recommendations on climate change and health illustrate CHNAs' shortcomings on environmental conditions. AAP's November 2015 policy statement⁴ and ACP's May 2016 position article⁵ review evidence of climate change's adverse health effects, including increased respiratory, heat-related, vector-borne, waterborne, and mental illnesses as well as food and water insecurity. These prominent professional organizations recommend health care sector actions for climate change mitigation and adaptation in US communities.

There are huge gaps between these organizations' positions and hospitals' CHNA strategies. First, AAP and ACP recommend that hospitals make their facilities and operations more energy efficient and environmentally sustainable. In addition to contributing to greenhouse gases, hospitals' energy uses directly affect their communities' health via toxic particulate matter and ozone as well as other air emissions from local power plants and vehicles.

Although hundreds of hospitals have significantly increased their energy efficiency, CHNAs fail to draw the focus of thousands of other facilities to emissions from their operations. Many CHNAs observe poor air quality in their communities and the adverse health repercussions.

However, in selecting actions to improve local population health, hospitals usually treat local air quality as beyond their influence. The hospitals' implementation strategies ignore proven, often cost-saving strategies to make their facilities and operations more energy efficient, use renewable energy, and purchase more sustainable products and services. By not engaging in the CHNA process, environmentalists miss these opportunities to press hospitals for energy audits and retrofits, low-emission vehicles for their fleets and suppliers, and other improvements to their operations.

Second, AAP and ACP urge the health care sector to prepare for climate change consequences, which would ensure continued operations during periods of elevated patient demands. Hospitals must strengthen the resiliency of their own facilities and operations; they are key stakeholders in community preparedness for the health threats of increasing floods, heatwaves, wildfires, vectors for infectious diseases, pollen, and other environmental conditions ensuing from climate change.

Hospitals and communities must identify and remedy climate-related vulnerabilities in facilities and transportation, populations, infrastructure, resources, services, training, and plans. CHNAs have not highlighted such community health risks or spurred hospitals to advance climate preparedness for their operations and communities. The model for developing CHNAs through hospital–public health–community collaboration provides a prime opportunity for this work. Environmentalists should point CHNAs toward climate-related health threats and health care sector and community vulnerabilities. In some cases,

nature projects are part of the preparedness solution. To illustrate, many hospitals could implement green infrastructure around their facilities to manage storm water, which could promote healthy exercise and mental health as well as resiliency.

Third, AAP and ACP recommend that physicians educate their patients, communities, and government officials about the health risks posed by climate change and advocate actions to mitigate and adapt to these risks.

CHNAs often support hospitals' communications efforts to improve population behaviors (prenatal care, healthy eating, etc.), frequently by partnering with public health programs. Yet, with rare exceptions, CHNAs ignore forward-looking indicators of community health needs and corresponding education strategies. Environmentalists should guide CHNAs to add a climate change focus to hospitals' communications and advocacy programs. Feasible hospital climate education efforts include staff training, engaging in community decisions, and creating community outreach programs. Many community climate actions benefit population health, such as planting trees and green roofs to reduce urban heat islands, warning farmworkers of heat dangers, and encouraging rooftop solar power.

Environmentalists could also improve CHNAs by encouraging hospitals to address other types of community environmental health needs. For example, hospitals could readily apply the information collected for CHNAs and their expertise to help communities prepare health impact assessments for parks and trails, as the Centers for Disease Control and Prevention recommends.⁶ Only a handful of such analyses have been completed. Rarely do hospitals commit to

this feasible, low-cost action, despite many CHNAs prioritizing obesity and more physical exercise in the population. By participating in CHNAs, environmentalists could facilitate hospital–community planner collaboration on assessing these environmental and health resources.

As another illustration, CHNAs should identify communities threatened by environmental toxins, such as lead in water systems or soil, hazardous waste dumps, and pesticides. Too many CHNAs ignore these environmental health threats. When such risks exist, hospitals should implement information and quality control systems to improve alerts to outbreaks, reducing illnesses and hospitalizations.⁷

CONCLUSIONS

Many environmental conditions are major determinants of population health that hospitals can influence. CHNAs require hospitals to devote substantial resources to identifying and improving community health conditions but largely fail to spur actions addressing environmental threats. In particular, CHNAs fall short of directing hospitals to help mitigate and adapt to the local health impacts of climate change, as recommended by leading organizations of health care professionals.

Hospitals' CHNAs overwhelmingly focus on access to health care rather than environmental actions. With greater participation by environmentalists, CHNAs could raise hospitals' attention to feasible environmental actions that would improve community health. As illustrations, environmentalists should encourage hospitals to prioritize improving air quality

by reducing hospitals' energy consumption, building resilience against climate change consequences in health care and community resources, advocating actions to help mitigate the local health effects of climate change, contributing to health impact assessments of parks, and identifying threats from toxins. *AJPH*

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