TOOLS TO OVERCOME ENVIRONMENTAL INJUSTICE

Community Health Needs Assessments and Implementation Strategies

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T he latest research confirming the human and financial costs of the climate crisis has made protecting the environment a top priority for the public and private sectors.[1] For health care organizations, addressing climate change and pollution is also tied to its mission: to "do no harm" and to protect the health of the communities they serve, particularly the health of the poor and vulnerable. The Fall 2021 issue of *Health Progress* focused on how the Catholic health ministry is meeting environmental goals with changes in facility energy and water use, transportation, chemical and waste management, purchasing and investment strategies.

Community health needs assessments (CHNAs) and implementation strategies can meet environmental and health equity goals when they address the origins and impacts of ecological degradation in local communities, particularly in communities with low-income residents and people of color disproportionately impacted by climate change and pollution.[2,3] Health equity is another top priority on which Catholic health care has pledged to take action, including through a commitment to CHA's We Are Called initiative. (See WeAreCalled.org for more information.)

In the most recent issue of *Health Progress*, Laura Anderko, PhD, RN, provided an overview of environmental injustice — its roots in systemic racism and its health impacts — and ways health care organizations can address this complex problem.[4] She noted, "Institutions serving marginalized communities should consider identifying environmental factors in community health needs assessments and use partnerships to address social and environmental factors that negatively impact individual and community health." This approach calls for 1) collecting information that can identify environmental issues, including impacts of climate change and environmental injustice; 2) using community input to put this information into context and action; and 3) developing implementation strategies (plans to address needs identified in the CHNA) that include multifaceted approaches to protect those most impacted by environmental degradation.

GATHERING INFORMATION

The right data is key to identifying communities impacted by environmental injustices. The following are a few examples of where to find this information:

■ The EPA has a tool, EJSCREEN, that can be used to identify locations that might be at risk for environmental justice concerns.[5] The tool provides 11 environmental indicators, including proximity to hazardous waste facilities and Superfund sites, which are contaminated with hazardous substances. An EPA report released in September 2021, titled "Climate Change and Social Vulnerability in the United States," used indicators for extreme temperature, flooding and air quality to show the disproportionate harm of climate impact on socially vulnerable populations, including minority communities.[6]

■ The CDC hosts the National Environmental Public Health Tracking Network, which brings together health and environmental data from national, state and city sources. This resource includes a climate change dataset that looks at drought, extreme heat, heat-related illnesses, flooding, vulnerability, preparedness and wildfires. It also includes an environmental justice dashboard to explore data on environmental

exposures, community characteristics and health burden.[7, 8]

Kaiser Permanente has incorporated these types of climate/environmental indicators into their CHNA data platform, which includes indicators for risk of drought and heat wave, coastal and river flooding and tree canopy cover.[9]

COMMUNITY INPUT

Community input is essential in validating environmental data in the CHNA and identifying community assets that can help implement changes.

PolicyLink's "Equity Issue Brief: Advancing Environmental Justice Through Sustainability Planning" notes that "the intentional involvement of traditionally underrepresented communities — especially low-income people of color — is key to addressing local environmental justice concerns. Not only do these communities benefit from inclusion in the planning processes, but on-the-ground knowledge can help those making planning and policy decisions in identifying activities of polluters and potential hidden hazards that they may not even realize exist."[10]

The brief describes "ground truthing," a community-based participatory research method that uses the knowledge and observations of community residents to paint a more complete picture of environmental burdens in the community. This direct community knowledge can help gather information about the proximity of pollution sources to "sensitive receptors" like hospitals, schools, daycare centers and places where the elderly gather. In addition to providing more context to environmental data, ground truthing can also help build trust in the community.

THE IMPACT OF ENVIRONMENTAL INJUSTICE: KEY FINDINGS

To better understand the importance of health care organizations implementing strategies to overcome environmental injustice, it's imperative to grasp the full toll that the climate crisis is having on poor and vulnerable people, and why eliminating these inequities is crucial to protecting their health. Below are some key findings about the health consequences of ecological injustices impacting our communities today:

■ Race is the No. 1 indicator for the placement of toxic facilities in the U.S.

■ From 2000 to 2010, disparities in nitrogen dioxide, or NO_2, exposure were larger by race-ethnicity than by income. African American and Hispanic people experienced 37% higher exposures to NO_2 than white people in 2010. NO_2 is linked to asthma symptoms, increased susceptibility to respiratory problems and heart disease.

■ African Americans face a 54% higher health burden from air pollution, such as particulate matter, compared to the overall population. Communities of color have a 28% higher health burden compared to the overall population.

■ As a result of ozone increases from natural gas emissions, African American children are burdened by 138,000 asthma attacks and 101,000 lost school days each year.[1]

■ With 2°C (3.6°F) of global warming:

— Black individuals are 40% more likely to live in areas with the highest projected increases in extreme temperature-related deaths.[2]

— Hispanic individuals are 43% more likely to live in areas with the highest projected reductions in labor hours due to extreme temperatures.[2]

— American Indian and Alaska Native individuals are 48% more likely than non-American Indian and non-Alaska Native individuals to live in areas where the highest percentage of land is projected to be inundated due to sea level rise.[2]

NOTES:
1. "Creating The Healthiest Nation: Environmental Justice for All," American Public Health Association, https://www.apha.org/-/media/files/pdf/factsheets/environmental_justice.ashx.
2. "Climate Change and Social Vulnerability In the United States: A Focus on Six Impacts," United States Environmental Protection Agency, September 2021, https://www.epa.gov/system/files/documents/2021-09/climate-vulnerability_september-2021_508.pdf.

Other community-based approaches to data validation, such as focus groups and key informant interviews, can also identify community-based organizations that are already working on environmental justice issues. These organizations are community assets, and the health care organization's implementation strategy should focus on ways to support the efforts of these groups, including providing resources and connections to help them fully participate in zoning, land use and public health/emergency preparedness decisions that are critical to reducing pollution, building community resilience and incentivizing cleaner, more sustainable industries.

IMPLEMENTATION STRATEGIES

Implementation strategy actions that address environmental issues should address not just mitigation (minimizing or avoiding impacts) but community resilience to deal with regularly occurring environmental disasters and community capacity building to address environmental injustices. As Anderko noted, all actions need to be done through community partnerships to be effective and sustainable. In addition to external partnerships, community benefit leaders will also need to collaborate with colleagues who work in government relations, real estate, philanthropy, investments, emergency preparedness and operations to support these efforts:

■ **Mitigation:** Working with communities to change zoning and land use policies can be a very effective way to mitigate the impacts of polluting sites and development plans that degrade local communities. The February 2019 report "Local Policies for Environmental Justice: A National Scan" notes, "While local zoning codes and land use policies historically have been tools for segregating people and concentrating pollution in low-income communities and communities of color, community-based advocacy can transform these same tools into means for addressing cumulative burdens borne by environmental justice communities." To be effective and avoid duplicative efforts, health care organizations should partner with community-based organizations and coalitions already working on environmental justice issues so they can provide direction on where hospitals can be most effective in this work.

■ **Resilience:** As localities plan to respond to the inevitable impacts of climate change and pollution, the concerns of vulnerable communities need to be at the forefront. Given the cumulative burdens of environmental, social and biological factors (toxicity exposure, poor health, housing and transportation insecurity and language barriers), these groups are often ill-equipped to deal with extreme weather events. The U.S. Climate Resilience Toolkit and the CDC's BRACE (Building Resilience Against Climate Effects) framework offers guidance for preparing for health threats.[11] Some examples include plans to address mental health issues resulting from climate disasters or ensuring that all community members can safely weather or evacuate from extreme climate events such as wildfires or flooding.[12]

■ **Capacity Building:** Generations of systemic racism have impoverished minority communities and limited their political power. As a result, these communities could not use the power of wealth and political influence to stop the environmental devastation of their communities. Health care organizations, often influential leaders in communities, can use their relationships with business leaders, policymakers and government agencies to bring environmental justice advocates and their issues to tables of influence and power. "A

COMMUNITY VOICES OF CHANGE

The wisdom and lived experiences of community advocates must be at the center of efforts to fight environmental injustices. Listen to the stories of these activists to understand the shared challenges they face and the support they need as they fight to protect the health and environment of their communities.

■ CHA 2021 Earth Day Webinar: Environmental Justice — A Conversation with Hilton Kelley

— https://www.chausa.org/online-learning/detail/environmental-justice-a-conversation-with-activist-hilton-kelley.

■ 2021 *Laudato Si'* and the U.S. Catholic Church Conference: Environmental Justice session (features the efforts of the Diocese of Stockton, California; Sharon Lavigne of RISE St. James; and Cheryl Johnson of People for Community Recovery)

— https://catholicclimatecovenant.org/resource/2021-laudato-si-and-us-catholic-church-conference-recordings.

Scoping Review of Capacity-Building Efforts to Address Environmental Justice Concerns," published in May 2020, introduces examples of deep-community capacity-building strategies.[13] For hospitals, this could include supporting mobilization efforts and providing resources and training so community members can learn to develop policy solutions and participate more effectively in decision-making.

As Catholic health care organizations reshape their CHNAs and implementation strategies to address environmental injustices, they should be guided by the core virtues of solidarity, trust, humility and patience outlined in CHA's *Healing the Multitudes: Catholic Health Care's Commitment to Community Health*.[14] These virtues will ensure that we put community at the center of this work, trusting community advocates to lead the way and recognizing that we are responsible to care for our brothers and sisters who are suffering. For this work to be truly sustainable, their voices must be heard and their influence must be felt.

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NOTES
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2. "EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States," United States Environmental Protection Agency, September 2, 2021, https://www.epa.gov/newsreleases/epa-report-shows-disproportionate-impacts-climate-change-socially-vulnerable.
3. Linda Villarosa, "Pollution is Killing Black Americans. This Community Fought Back," *The New York Times Magazine*, July 28, 2020, https://www.nytimes.com/2020/07/28/magazine/pollution-philadelphia-black-americans.html.
4. Laura Anderko, "Understanding and Addressing Environmental Injustice and Health," *Health Progress* 102, no. 4 (Fall 2021): 16-21, https://www.chausa.org/publications/health-progress/article/fall-2021/under-standing-and-addressing-environmental-injustice-and-health.
5. "EJSCREEN: Environmental Justice Screening and Mapping Tool," United States Environmental Protection Agency, https://www.epa.gov/ejscreen.
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9. "Community Health Needs Dashboard," Tableau Public, https://public.tableau.com/app/profile/kp.chna.data.platform/viz/CommunityHealthNeedsDashboard/Starthere.
10. Manuel Pastor, Madeline Wander, and Mirabai Auer, "Equity Issue Brief: Advancing Environmental Justice through Sustainability Planning," USC Dornsife, https://dornsife.usc.edu/assets/sites/242/docs/EQUITY_ISSUE_BRIEF_Env_Just_Full.pdf.
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12. Susan Clayton et al., "Mental Health and Our Changing Climate: Impacts, Implications, and Guidance," American Psychological Association, March 2017, https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf.
13. Dana H. Z. Williamson et al., "A Scoping Review of Capacity-Building Efforts to Address Environmental Justice Concerns," *International Journal of Environmental Research and Public Health* 17, no. 11 (June 2020), https://doi.org/10.3390/ijerph17113765.
14. "Healing the Multitudes: Catholic Health Care's Commitment to Community Health," Catholic Health Association of the United States, https://www.chausa.org/docs/default-source/community-benefit/sdoh_healing-the-multitudes_practicioner_v16.pdf?sfvrsn=6.

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