

Understanding and Addressing Environmental Injustice and Health

LAURA ANDERKO, PhD, RN

Co-director at Villanova University's Mid-Atlantic Center for Children's Health and the Environment

“Today, however, we have to realize that a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor.”

— Pope Francis, *Laudato Si'*

Environmental justice is a human rights issue and one that significantly impacts health. In his encyclical *Laudato Si'*, Pope Francis calls for “an integral ecology, one which clearly respects its human and social dimensions.”¹ Due to wealth disparities, systemic racism, the legacy of redlining, poor land use in community planning and marginalized political influence, many communities face negative health consequences from polluting industries, natural disasters and climate change.

The people in these communities have historically faced discrimination, bearing the burden of pollution and other environmental hazards without benefitting from the protections enjoyed by communities who possess more economic, political and societal capital.² Current policies and systems fail to meet fundamental needs that would support resiliency in overburdened communities that have traditionally been underrepresented in decision-making processes.

Decades of research provides solid evidence of disproportionate environmental health risks affecting communities of color, indigenous communities and low-income people across a variety of environmental hazards: lead, air pollution, chemical facilities, mining and climate change.³⁻⁸ While health professionals have worked tire-

lessly to address health care needs, we need a broader perspective to identify and act on the underlying causes of health disparities — especially those brought on by exposure to environmental hazards that are inherent in marginalized communities. We need to focus on justice issues, specifically environmental justice issues, to fully address the health needs of these overburdened populations.

Health professionals play a critical role as they shape institutions, research, application of health practices and policies, and interactions with communities to advance environmental justice. This will require health professionals to embrace a social determinants model of health, recognizing that environmental hazards can lead to a lifetime of poor physical condition.

ENSURING ENVIRONMENTAL JUSTICE: HISTORICAL PERSPECTIVES

The Environmental Protection Agency defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies.” According to the EPA, environmental justice is achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process that creates a healthy environment in which to live, learn and work.⁹

The environmental justice movement grew out of the civil rights movement and was started by people of color, who sought to address the inequity of environmental protection in their communities. In 1982, a national, nonviolent sit-in protest against a polychlorinated biphenyl (PCB) landfill in Warren County, North Carolina, was organized. While unsuccessful in halting construction, the protest is credited with mobilizing the environmental justice movement. The EPA, established in 1970, did not address disparities in environmental health until 1990, with the creation of the Environmental Equity Workgroup. This group addressed the accusation that low-income people and communities of color carried a higher environmental risk burden than the general population.¹⁰

In 1991, the First National People of Color Environmental Leadership Summit was held with representation from Native American, Black, Latino and Asian Pacific populations. It created the “17 Principles of Environmental Justice” to strategically guide national and international efforts to achieve environmental justice. These principles include the right to clean air, land, water and food; to participate as equal partners at every level of decision-making; and to demand an end to the production of all toxins, hazardous wastes and radioactive materials with producers held

accountable for detoxification and containment. It also affirms the “sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.”¹¹

The principles laid the groundwork for Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” which was signed in 1994 and focuses on federal action to achieve environmental protection for all.¹² However, federal action alone has not been enough to address the inequities.

THE INTERSECTION OF ENVIRONMENTAL INJUSTICE AND HEALTH

Understanding environmental injustice begins with the awareness that the adverse impacts of exposure to environmental hazards are not experienced equitably among people, with race as the strongest indicator of health threats. Achieving environmental justice and health equity requires assessment of and action to address environmental health burdens, using a social determinants of health framework.

Healthy, sustainable and equitable communities that address inequities in housing, transportation, health and the environment through capacity building, research, training and federal agency contacts will result in environmental justice. This is accomplished by advancing meaningful community partnerships that emphasize engagement at all stages and building partnerships with area residents, health professionals, business leaders, government agencies and policymakers (see Figure 1).

Industrial and hazardous waste sites are more prevalent in underserved communities, as are the resulting toxic emissions and contaminants that threaten health. Substandard housing conditions found in these communities are more likely to contain lead paint, water pollutants and mold, leading residents to suffer adverse health and develop-

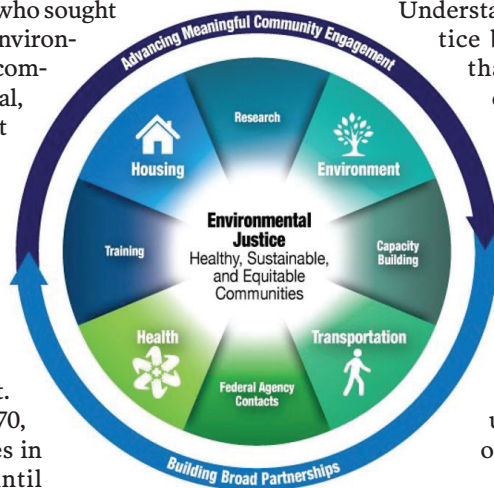


FIGURE 1
SOURCE: EPA. Available at: <https://www.epa.gov/environmentaljustice/resources-creating-healthy-sustainable-and-equitable-communities>



mental outcomes. For example, Black children are twice as likely to be hospitalized for asthma and are four times more likely to die from asthma as white children.¹³ Decades of studies reveal similar health disparities in incidence and severity of cancer and developmental disabilities.^{14,15}

Research has shown the healing effects of nature and being outdoors on health. However, a lack of green space and parks in underserved communities reduces opportunities for experiencing the health benefits from engaging with nature.¹⁶

ADVANCING ENVIRONMENTAL JUSTICE

A number of actions can advance environmental justice and promote health equity, including expanded curricula for health professions education, systemic change and improved legislative policy.

Health Professional Education and Practice

Social determinants of health, in particular the effects the environment can have on health, have not traditionally been taught in the health professional curriculum. It is essential that these professionals become educated on the connections between the environment and health, as well as any disproportionate exposures experienced in the communities they serve. Organizations such as the Pediatric Environmental Health Specialty Units (www.pehsu.net) and the Alliance of Nurses for Healthy Environments (<https://envirn.org>) are dedicated to educating health professionals on a range of environmental health topics, with

A lack of green space and parks in underserved communities reduces opportunities for experiencing the health benefits from engaging with nature.

a commitment to addressing environmental justice issues. Educational events are offered free of charge and often provide continuing education credit to medical professionals.

In the practice setting, health professionals must promote environmental exposure assessment and track associated health effects to advocate for policies and programs that support the remediation of environmental threats, particu-

larly in overburdened communities. EJSCREEN (<https://www.epa.gov/ejscreen>) is a mapping and screening tool that communities can use to determine health threats by accessing demographic and environmental information, such as air and water quality or lead in housing.

Institutional and Systems Change

Hospital community benefit programs, required by the Internal Revenue Service and reinforced under the Affordable Care Act, can be designed to improve community health by focusing on environment conditions, such as the quality of air, water and/or hazardous exposures. 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. Community benefit programs can even address environmental issues as complex as climate change.¹⁷

Legislative Responses

While it is customary to focus interventions on individual health issues, the complex intersection of stressors and risks with the lack of social protections dictates that health professionals and society focus on the broader policy issues that increase risks for illness in overburdened, poverty-stricken individuals, families and communities. Government agencies must commit to a long-term, multisector approach that includes improvement in housing, schools, wages, transportation, environmental protections and public health measures that will protect at-risk communities and reduce poverty. The administration of President Joe Biden has taken important steps to re-enact policies and legislation that will move the U.S. toward reducing greenhouse gases and improving air quality, as well as addressing social determinants of health, such as housing.¹⁸ These measures provide an important launching point to build financial capacity and environmental sustainability in at-risk communities, but more must be done to address the complex issues arising from the legacy of discrimination.

The Environmental Justice for All Act, introduced in Congress in March, was informed by communities impacted by environmental racism

Health professionals who are informed about the principles of environmental justice are better prepared to recognize environmental health risk factors in the patients, families and communities they serve.

and oppression. The bill is rooted in the moral principles that all people have the right to pure air, clean water and an environment that enriches life. Building on these principles, federal policy should seek to achieve environmental justice, health equity and climate justice for all. Some of the key features of the act will address cumulative health impacts in permitting decisions under the Clean Water Act and the Clean Air Act; fund grant programs to investigate personal and child-care products containing chemicals linked to adverse health impacts; and provide more equitable access to parks and recreational opportunities for underserved communities.¹⁹

This summer, the EPA announced that it will provide \$50 million for environmental justice initiatives through funds allocated under the American Rescue Plan. Congress designated this money for grants, contracts and other agency activities that identify and address disproportionate environmental or public health harms and risks in underserved communities. Examples include supporting community-based programs such as the Asthma Prevention and Control Programs, which seek to improve asthma outcomes in underserved communities, as well as outreach and education programs through the Healthy People, Homes and Neighborhood campaign.²⁰

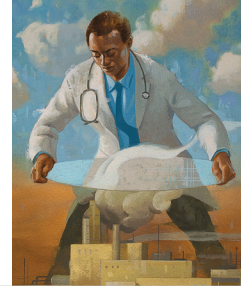
Advancing health equity will require health professionals to understand environmental injustices that impact the health of the communities where they practice and to advocate for a more just society. Health professionals who are informed about the principles of environmental justice are better prepared to recognize environmental health risk factors in the patients, families and communities they serve. Informed health professionals must advocate for policies that

protect minority and low-income communities from hazardous environmental exposures and promote fair environmental policies, informed by the community.

LAURA ANDERKO, PhD, RN, serves as co-director for the Mid-Atlantic Center for Children's Health and the Environment (Federal Region 3 Pediatric Environmental Health Specialty Unit) at Villanova University, M. Louise Fitzpatrick College of Nursing, Villanova, Pennsylvania. She was recognized by the administration of President Barack Obama with the Champion of Change Award in 2013 for her work with communities to address climate change and public health.

NOTES

1. Pope Francis, *Laudato Si'*, (Vatican, 2015), https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
2. Melanie Boeckmann and Hajo Zeeb, "Justice and Equity Implications of Climate Change Adaptation: A Theoretical Evaluation Framework," *Healthcare* 4, no. 3 (2016): 65.
3. Robert J. Sampson and Alix S. Winter, "The Racial Ecology of Lead Poisoning: Toxic Inequality in Chicago Neighborhoods, 1995-2013," *Du Bois Review: Social Science Research on Race* 13, no. 2 (2016): 261-283.
4. Ihab Mikati et al., "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," *American Journal of Public Health* 108, no. 4 (2018): 480-485.
5. "Life at the Fenceline: Understanding Cumulative Health Hazards in Environmental Justice Communities," Environmental Justice for All, <https://ej4all.org/life-at-the-fenceline>.
6. Johnnye Lewis, Joseph Hoover and Debra MacKenzie, "Mining and Environmental Health Disparities in Native American Communities," *Current Environmental Health Reports* 4, no. 2 (2017): 130-141.
7. Donald J. Wuebbles, "Impacts, Risks, and Adaptation in the United States: 4th US National Climate Assessment, Volume II," in *World Scientific Encyclopedia of Climate Change: Case Studies of Climate Risk, Action, and Opportunity*, (Singapore: World Scientific, 2021), 85-98.
8. "Addressing Environmental Justice to Achieve Health Equity," American Public Health Association, <https://www.apha.org/Policies-and-Advocacy/Public-Health-Policy-Statements/Policy-Database/2020/01/14/>.



Addressing-Environmental-Justice-to-Achieve-Health-Equity.

9. “Environmental Justice at the EPA,” Environmental Protection Agency, <https://www.epa.gov/environmentaljustice>.

10. “Environmental Justice Timeline,” Environmental Protection Agency, <https://www.epa.gov/environmentaljustice/environmental-justice-timeline>.

11. “Environmental Justice Principles,” EJnet.org: Web Resources for Environmental Justice Activists, <https://www.ejnet.org/ej/principles.pdf>.

12. President Bill Clinton, “Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 59 FR 7629” (1994).

13. “Children’s Environmental Health Disparities: Black and African American Children and Asthma,” Environmental Protection Agency, https://19january2017snapshot.epa.gov/sites/production/files/2014-05/documents/hd_aa_asthma.pdf.

14. Gopal K. Singh and Jemal Ahmedin, “Socioeconomic and Racial/Ethnic Disparities in Cancer Mortality, Incidence, and Survival in the United States, 1950-2014: Over Six Decades of Changing Patterns and Widening Inequalities,” *Journal of Environmental and Public Health*

vol. 2017 (2017), <https://doi.org/10.1155/2017/2819372>.

15. Benjamin Zablotsky et al., “Prevalence and Trends of Developmental Disabilities among Children in the United States: 2009–2017,” *Pediatrics* 144, no. 4 (2019).

16. Howard Frumkin et al., “Nature Contact and Human Health: A Research Agenda,” *Environmental Health Perspectives* 125, no. 7 (2017).

17. Julie Trocchio, Ellen R. Tohn and Lauren Kleinman, “Community Benefit–Impact on Climate Change and the Environment,” *Health Progress* 97, no. 5 (2016): 69-71.

18. Juliet Eilperin, Brady Dennis and John Muyskens, “Tracking Biden’s Environmental Actions,” *The Washington Post*, <https://www.washingtonpost.com/graphics/2021/climate-environment/biden-climate-environment-actions/>.

19. Raúl M. Grijalva and A. Donald McEachin, “Environmental Justice for All Act” (2021), <https://naturalresources.house.gov/imo/media/doc/EJ%20Fact%20Sheet%20-%20March%202021.pdf>.

20. “EPA Announces \$50 Million to Fund Environmental Justice Initiatives Under the American Rescue Plan,” Environmental Protection Agency, <https://www.epa.gov/newsreleases/epa-announces-50-million-fund-environmental-justice-initiatives-under-american-rescue>.

QUESTIONS FOR DISCUSSION

The Environmental Protection Agency says environmental justice is achieved when everyone enjoys the same degree of protection from ecological and health hazards and equal access to the decision-making process that creates a healthy environment in which to live, learn and work.

1. Did you learn about environmental justice as part of your education or after you were on the job?

2. How do environmental justice concerns affect your communication with patients? Do you make a deliberate effort to ask patients about environmental factors or social determinants of health that may be hurting or helping their overall health? Do certain factors come up over and over again?

3. Whose responsibility is it in your health care facility to consider environmental justice issues? Executive leaders, mission leaders, advocacy staff, those working in community benefit, clinicians? Is it everyone’s responsibility to be aware of environmental justice issues? Do you see this as fundamental to your role in health care, or can it just feel like one more responsibility in a time of many competing responsibilities?

4. How does understanding environmental justice tie into the health equity work your health care organization is already doing? What more can be done to make sure you’re hearing from diverse voices in the communities you serve? What advocacy efforts or collaborative partnerships can your organization pursue to address environmental justice issues at the local, state and federal levels?

JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES

www.chausa.org

HEALTH PROGRESS®

Reprinted from *Health Progress*, Fall 2021, Vol. 102, No. 4
Copyright © 2021 by The Catholic Health Association of the United States
