Creating The Healthiest Nation:
Environmental Justice for All

DEFINITIONS

Fair treatment means no group of people should bear a disproportionate share of negative environmental consequences from policies.

Meaningful involvement allows people to participate in decisions and make contributions with the power to influence agency decisions. Public concerns must be considered, and decisionmakers should seek out those affected by policy.

Environmental racism is any environmental policy, practice or directive that differentially affects or disadvantages — whether intentionally or unintentionally — individuals, groups or communities based on race or color. It's a form of environmental injustice administered and reinforced by government, economic and political structures and institutions. Environmental racism benefits white people while shifting costs to people of color.[2] Disregarding racism as a contributor to health disparities ignores social history and the experience of afflicted individuals and perpetuates inequity.[3]

Climate justice highlights the uneven burden of the negative consequences of climate change. The impacts of climate change are global, immediate and affect public health in many ways. They can: harm the water supply; expand the range of vector-borne disease; and increase the severity, frequency and duration of extreme weather events. Many of these consequences, like lower air and water quality, disproportionately burden communities of color and low-income communities.

We all deserve to live in a healthy environment. Everyone should have access to: clean air and drinking water; healthy and affordable homes and public spaces like parks and playgrounds; and safe and affordable transportation options for all modes, such as walking, biking, rolling and using public transit. Social factors, such as race and income, should not determine the quality of one's health or the level of one's exposure to toxins. Unfortunately, health disparities based on race, national origin and income are a reality in the United States, both historically and today. Disproportionate exposures to pollutants and adverse effects of climate change can result in a multitude of severe health issues that are costly for the American people.

Environmental justice is 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 policy.[1]

The term environmental justice acknowledges the racial and economic disparities among communities bearing disproportionate environmental costs, like more lead, particulate air pollution, ozone smog and other health hazards in the places people live, work and play. All communities need tools to help them prepare for, respond to and cope with the impacts of these and other environmental issues. This includes addressing climate change, which exacerbates risk for vulnerable populations like low-income populations and communities

of color. Environmental justice is a public health issue that needs to be addressed by policymakers in all levels of government, business and communities.

BACKGROUND

In 1982, a polychlorinated biphenyl (PCB) landfill in a predominantly African-American community in rural Warren County, North Carolina, sparked community protests, resulting in over 500 arrests. PCBs are human-manufactured chemicals with a variety of adverse health effects on people's immune, reproductive, nervous and endocrine systems.[4] This community's grassroots activism is often regarded as the beginning of the environmental justice movement, though environmental injustice has existed for far longer.

The Warren County protests introduced the concept of environmental racism into the public sphere and prompted a 1983 study by the U.S. Government Accountability Office. The study showed that three out of four off-site commercial hazardous waste disposal areas in eight Southern states were located in predominantly African-American communities, even though African-Americans made up just 20 percent of the region's population.[2]

The momentum generated by the protests led to further studies that showed race to be the No. 1 variable in predicting where waste facility sites are located. The social justice and environmental movements came together and converged on Washington, D.C., in 1991 for the First National People of Color Leadership Summit. This historic, four-day event broadened the movement and led to a formal declaration of 17 Principles of Environmental Justice.

The movement spread, and, in the face of mounting evidence of environmental injustice and pressure from activists, the Environmental Protection Agency acted. The agency established the Office of Environmental Equity (later renamed the Office of Environmental Justice) and a special council to investigate. In 1994, President Bill Clinton issued an executive order mandating that all federal agencies incorporate environmental justice into their work and programs.

Climate Change is a Risk Multiplier

Climate change is an environmental justice issue today that threatens life as we know it. Risk for adverse effects of climate change may be increased by: 1) living in areas particularly vulnerable to climate change; 2) already having existing health risks compared to other groups; 3) being uninsured or living with limited access to health care services; 4) having limited availability and accessibility to public health information and resources; and 5) having a low ability to relocate or rebuild after a disaster.[5] Climate change will continue to exacerbate the uneven distribution of harmful health risks and result in surging health disparities.

HEALTH AND ENVIRONMENTAL JUSTICE

Many factors can contribute to an increased risk for health problems and affect a community's ability to prepare for, respond to and cope with the impacts of environmental issues like pollution and climate change.[5]

Often, the populations most vulnerable to the negative impacts of environmental hazards are low-income communities or communities of color. This can be due to structural racism, power dynamics, resource allocation, discriminatory housing practices and policies and more.

For example, most communities located next to and directly affected by the operation of corporate, industrial or service facilities are low-income, communities of color and other systemically oppressed groups. This close proximity exposes these groups to higher health, economic and social hazards beyond the pre-existing health disparities they already face, including higher rates of chronic disease, food insecurity and less access to health care.[6]

Similarly affected by polluting oil and gas infrastructure, these communities face health impacts of poor air quality including asthma attacks, nausea, body spasms, headaches and respiratory illnesses.[7] Negative environmental health consequences can

be magnified when local public health systems are underfunded and underdeveloped.[8]

Environmental justice also connects to transportation, as proximity to major roadways is an indicator of public health outcomes. The health impacts of traffic emissions inequitably burden low-income communities and communities of color. Major roadways are a source of noise pollution and hazardous air pollutants like particulate matter, nitrogen oxides, carbon monoxide and ozone. Exposure to these pollutants is linked to asthma, cardiovascular disease and death.[9] A substantial proportion of asthma-related morbidity is a consequence of near-roadway pollution.[10]

Low-income communities and communities of color have more high-speed, high-traffic roads and poorer pedestrian and bicycle infrastructure.[11] Environmental conditions like traffic volume and street design make pedestrian injury and fatality more common in low-income neighborhoods. Streets with traffic-calming features, such as traffic islands and circles, are found almost three times as often in high-income areas as compared to low-income areas.[12] Race is also a significant factor when studying pedestrian risk. Latino and African-American pedestrian fatality rates are about two times that of whites.[13]

KEY FINDINGS

- Race is the No. 1 indicator for the placement of toxic facilities in the U.S.[18]
- In 2007, more than half of people who live within 1.86 miles of toxic waste facilities in the U.S. were people of color.[19]
- More than 11 percent of African-American children and 4 percent of Mexican-American children are poisoned by lead in their environment from paint, food cans and other consumer products, compared with 2.3 percent of white children.[20]
- African-Americans face a 54 percent higher health burden from air pollution, such as particulate matter, compared to the overall population. Communities of color have a 28 percent higher health burden compared to the overall population.[21]
- 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 percent higher exposures to NO_2 than white people in 2010.[22] NO_2 is linked to asthma symptoms, increased susceptibility to respiratory problems and heart disease.[23]
- During 2016, asthma affected 15.7 percent of African-American children and 12.9 percent of children of Puerto Rican descent, while it affected 7.1 percent of white children.[24]
- 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.[7]
- Out of the 500,000 total school days missed in association with ozone smog from natural gas industry pollution each year,[25] African-American children carry 20.2 percent of the burden while making up only about 13 percent of the U.S. population.[26]
- For every dollar spent on national- and state-level environmental health programs, $71 in asthma-related expenditures is saved.[8.]

Housing quality, affordability and location are deeply rooted in injustices, such as discrimination, distribution of power and wealth and disinvestment.[14] People of color and those living in low-income communities are more likely to have poor housing quality, such as peeling lead paint, resulting in negative health outcomes, particularly among our most vulnerable — children.[15]

African-Americans and low-income people are 1.7 times and 2.2 times more likely, respectively, to occupy homes with severe physical problems compared with the general population.[16] Additionally, there is a shortage of affordable homes for rent, resulting in increased spending on rent and leading to insufficient funds for food or transportation. As of 2017, nearly 7.5 million affordable rental housing units are unavailable to extremely low-income households.[17]

CASE EXAMPLE: WE ACT'S DIRTY DIESEL CAMPAIGN

In the late 1980s, West Harlem community advocates formed the nonprofit WE ACT for Environmental Justice. They sought to build healthy communities in Northern Manhattan by ensuring that people of color and low-income residents participate in creating the environmental health and protection policies and practices for their area.

The environmental advocacy organization noticed that the area's predominately low-income African-American and Latino populations suffered from high rates of respiratory illness. It found that 71 percent of Manhattan Transportation Authority's diesel bus depots were located north of 100th Street. And studies showed that diesel engines emit 30 to 100 times more particles than gasoline engines, which have emission control devices.[27]

After protests proved unsuccessful, WE ACT partnered with the Columbia University Center for Children's Environmental Health to gather evidence to support their claims of environmental injustice. Columbia epidemiologists teamed with interns from the community, who measured sidewalk concentrations of diesel exhaust particles and found that Harlem did, indeed, have higher emissions.

EPA conducted ambient monitoring in the same locations and confirmed that these emissions were connected to the local diesel bus depots — and were much higher than EPA's proposed recommended standard.28 Still, the research partnership and a growing body of evidence linking diesel exhaust fumes to asthma, emphysema, bronchitis, heart attacks, lung cancer and premature death failed to move the Manhattan Transportation Authority to action.

So, in 2000, WE ACT and Northern Manhattan residents filed a Title VI complaint with the U.S. Department of Transportation, charging the Manhattan Transportation Authority with violating residents' civil rights. DOT concluded that the Manhattan Transportation Authority must consider environmental justice principles in siting decisions. This ultimately led the Manhattan Transportation Authority to invest in diesel retrofits and hybrids.[29] WE ACT's collaborative partnership with the Columbia Children's Center for Environmental Health was critical to helping create an evidence-based campaign that strengthened the argument against polluting diesel busses.

RECOMMENDATIONS

Environmental justice is a multifaceted and intersectional issue that infuses our political, economic, health and other systems and structures. As a result, multiple aspects of society, including poverty and racism, need to be addressed in the pursuit of environmental justice. Action requires the participation of government, business and community partners at all levels.

- The federal government must assure safe and healthy air and water quality for all.
- Federal, state and local agencies must ensure fair treatment and combat discrimination and racial bias. Meaningfully involving underrepresented groups in decisionmaking will help change discriminatory practices.
- Local governments must provide access to safe, clean and affordable places to live, work, play and learn.
- Federal, state and local agencies must mitigate climate change and institute adaptation programs to protect health.
- Jurisdictions must ensure development of healthy communities by investing in safe walking, bicycling and street infrastructure and providing safe and affordable public transit options.
- City planners should reduce environmental injustice in transportation through better land use and site planning.
- Governments at all levels should adopt standard approaches to ensuring environmental health equity, protections, services and access for all, particularly vulnerable and at-risk populations.[8]

CONCLUSION

Environmental justice protects the health of all communities but is impeded by a legacy of environmental racism that continues to threaten health and well-being. Climate change exacerbates risk for vulnerable populations, which tend to be low-income populations and communities of color. People living with environmental injustices face an unfair added burden of health problems and are less able to prepare for and respond to the effects of climate change and pollution, leading to potentially disastrous consequences.

Effects of reduced air and water quality cause health problems like respiratory illnesses and cancer. To act on environmental justice, governments, businesses and other institutions should involve community members and work with constituents to analyze cumulative risks and design healthy communities.

By identifying at-risk populations, programs and funding can be targeted to alleviate burdens and remove structural barriers in order to protect the public health of all residents. Solving environmental justice issues advances health equity and creates environmental health benefits for everyone. In the words of Dr. Martin Luther King Jr., "Injustice anywhere is a threat to justice everywhere."

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