

Children and Health Disparities

All children, wherever they live, are affected by environmental hazards. Pollution and environmental degradation know no county, state, regional, or national border; contaminants are transported around the world. However, there are existing disparities in children's health that are a direct product of poverty and structural racism. Children from low-income communities and communities of color often have greater risk of exposures to pollution, higher levels of contaminants in their bodies, and more illness or disability such as asthma and learning disabilities.

The issue of poverty in the United States (U.S.) is tied intimately with the issue of race. Over the past 30 years, the average wealth of white families has grown by 84%--1.2 times the growth rate for Hispanic families and 3 times the growth rate for black families. Indeed, research indicates that the average black family would need 228 years to build the wealth of the average white family if current economic trends continue. For the average Hispanic family, achieving parity would take 84 years. [\[1\]](#)



Individuals and families living in higher income communities have the resources, power, and the time to fight against the siting of hazardous facilities or industry near their neighborhoods. Wealthy individuals are also able to afford homes in neighborhoods that exist farther away from polluting sources. However, a sole focus to address socioeconomic factors may be insufficient to reduce certain pollution exposures equitably. [\[2\]](#) Due to lower average household incomes but also other discriminatory factors that influence residential segregation [\[3\]](#), communities of color are more likely to reside in inadequate and unsafe housing and in neighborhoods that tend to be closer in proximity to polluting industrial facilities and high traffic roads. A seminal 1987 study and report, published by the United Church of Christ Commission for Racial Justice, showed that race was a major factor in the placement of hazardous waste facilities. [\[4\]](#) In California, for example, all three of California's Class I toxic waste dumps are in or near Hispanic communities. The follow-up report, a 2007 publication prepared for the United Church of Christ Justice and Witness Ministries, revealed that little had changed with regard to the racial and socioeconomic disparities of commercial hazardous waste facility siting. It was also the first national-level study to support the claim that hazardous waste facilities are disproportionately sited in low-income and minority communities. [\[5\]](#)

Higher levels of pollution in the environment does not always result in increased exposure at the personal level and greater accumulation of toxics within individuals' bodies. However, biological monitoring shows that children from low income communities or communities of color do experience greater body burdens of certain toxicants. A 2010 report by the Centers for Disease Control and Prevention (CDC) found higher blood lead levels among black and Hispanic children than among white children. [6] More than twice the number of black children had elevated blood lead levels as white children of the same age. A systematic review of the literature, published in 2016, confirmed that black children had the highest mean blood lead level among the levels reported for black, white, and Hispanic children. [7] CDC data from 1999-2014 show that black and Hispanic children are consistently found to have higher levels of mercury in their blood than white children aged 1-5 in the U.S. [8]



Higher body burdens of toxics increase the risk of developing certain diseases or disabilities, and children of color and from low income families do experience disproportionate adverse health outcomes. For example, the burdens of asthma fall more heavily on black and Hispanic children. As of 2015, black children (regardless of family income) reported higher rates of asthma according to the Office of Minority Health. [9] Black children are reportedly four times more likely to be hospitalized for asthma, and 10 times more likely to die of asthma than white children. Learning disabilities such as dyslexia or impaired social skills are also more common among children from families with lower incomes. Child Trends reported that in 2013, 12% of children living in families below the poverty line were identified as having a learning disability, compared to 6% of other children. [10]

Furthermore, children from underserved communities and communities of color are more susceptible to the adverse effects of climate change. This is due to inadequate investments in their neighborhoods, poor infrastructure, and residential segregation. Many are forced to live near hazardous waste sites, coal fired power plants, or polluting industry which often present significant exposure crises during natural disasters. Many in these communities lack the social and economic resources necessary to either relocate or to purchase the necessary materials or services to adapt to climate change where they are. As a result, low-income and non-white children are at higher risk of suffering during extreme weather events, either due to direct harm from natural disasters, or through potential increased air or drinking water pollution, food contamination, or from displacement, among other effects. [11] To read more on climate change and children's health, click [here](#).

As of 2016, 19% of all children in the U.S. live in poverty. By race and ethnicity, this amounts to 34% of black children and 28% of Hispanic children, compared with 12% of white children. [12] Mounting evidence indicates that additional issues related to poverty, such as lack of access to quality health care, malnutrition or undernutrition, and prolonged periods of adversity or toxic stress, can compound the harmful effects of environmental exposures on children's health. [13, 14] We cannot make adequate progress on improving environmental health for all children without first addressing matters of poverty for children of all racial and ethnic backgrounds, and across all zip codes, as well as the underlying issues of structural racism which perpetuate wealth and health disparities for children of color.

References:

1. Muhammed, D. A., Collins, C., Hoxie, J., & Nieves, E. (2016, August). The Ever-Growing Gap: Without Change, African-American and Latino Families Won't Match White Wealth for Centuries. Retrieved December 12, 2017, from http://www.ips-dc.org/wp-content/uploads/2016/08/The-Ever-Growing-Gap-CFED_IPS-Final-2.pdf
2. Mikati, BS, et al. (2018). Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status. *American Journal of Public Health*. Retrieved February 22, 2018 from <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2017.304297?journalCode=ajph>.
3. Park, YM & Kwan, MP. (2017). Multi-Contextual Segregation and Environmental Justice Research: Toward Fine-Scale Spatiotemporal Approaches. *Int J Environ Res Public Health*, 14(10): 1205. Retrieved February 23, 2018, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5664706/>.
4. Chavez, B. F., Jr., & Lee, C. (1987). Toxic Wastes and Race in the United States. Retrieved November 10, 2017, from http://d3n8a8pro7vhm.cloudfront.net/unitedchurchofchrist/legacy_url/13567/toxwrace87.pdf?1418439935
5. Bullard, R. D., Mohai, P., Saha, R., & Wright, B. (2007, March). Toxic Wastes and Race at Twenty: 1987-2007. Retrieved November 16, 2017, from <https://www.ejnet.org/ej/twart.pdf>
6. Lead Screening and Prevalence of Blood Lead Levels in Children Aged 1–2 Years — Child Blood Lead Surveillance System, United States, 2002–2010 and National Health and Nutrition Examination Survey, United States, 1999–2010. (2014, September 12). Retrieved November 29, 2017, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/su6302a6.htm>
7. White, B M, et al. "Racial/Ethnic Differences in Childhood Blood Lead Levels Among Children <72 Months of Age in the United States: a Systematic Review of the Literature." *Journal of racial and ethnic health disparities.*, U.S. National Library of Medicine, Mar. 2016, www.ncbi.nlm.nih.gov/pubmed/26896114.
8. CDC. 2017b. Fourth national report on human exposure to environmental chemicals, updated tables, January 2017, volume 1. https://www.cdc.gov/biomonitoring/pdf/FourthReport_UpdatedTables_Volume1_Jan2017.pdf (PDF) (656 pp, 19.6MB).
9. Office of Minority Health. (2017, March 31). Retrieved November 09, 2017, from <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=15>
10. Learning Disabilities. (2014, August). Retrieved November 30, 2017, from <https://www.childtrends.org/indicators/learning-disabilities/>

11. Morello-Frosch, R., PhD, MPH, Pastor, M., PhD, Sadd, J., PhD, & Shonkoff, S. B., MPH. (2009, May). The Climate Gap - Inequalities in How Climate Change Hurts Americans & How to Close the Gap. Retrieved December 12, 2017, from https://dornsife.usc.edu/assets/sites/242/docs/The_Climate_Gap_Full_Report_FINAL.pdf
12. Children in poverty by race and ethnicity | KIDS COUNT Data Center." *KIDS COUNT data center: A project of the Annie E. Casey Foundation*, Sept. 2017, datacenter.kidscount.org/data/tables/44-children-in-poverty-by-race-and-ethnicity#detailed/1/any/false/870/10,11,9,12,1,185,13/324,323
13. Massey, R. (2004). Environmental Justice: Income, Race, and Health. Retrieved December 15, 2017, from http://www.ase.tufts.edu/gdae/education_materials/modules/Environmental_Justice.pdf
14. Adler T. 2009. A Complex Relationship: Psychosocial Stress, Pollution, and Health. *Environ Health Perspect* 117:A407; <http://dx.doi.org/10.1289/ehp.117-a407a>