

Environmental Health and Justice⁷¹⁹

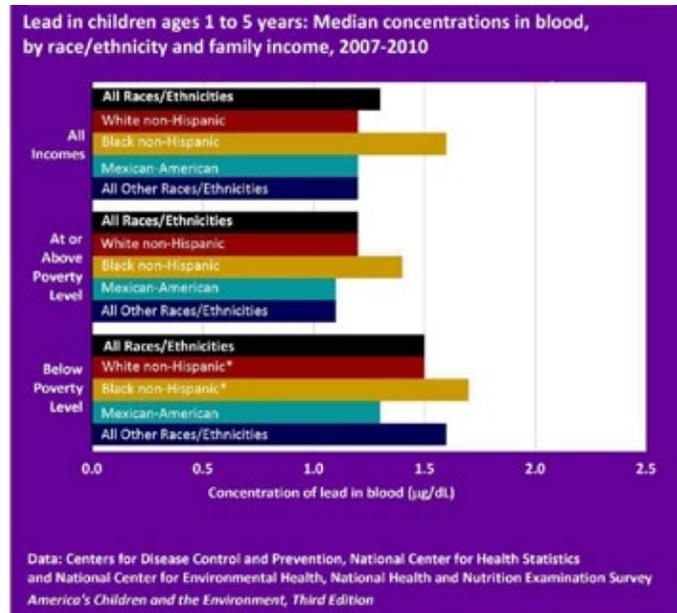
From the food and water people consume to the air they breathe, the physical environment can have profound effects on individual health. An estimated 13 percent of diseases could be prevented through improvements in the environment.⁷²⁰ The economic impact of the health effects of environmental factors among children alone is more than \$76.6 billion per year.⁷²¹

The recent contaminated water crisis in Flint, Michigan helped highlight the continued environmental health threats in homes and communities around the country — and threats are significantly higher in low-income and minority communities.

Young children also have higher risk due to harmful environmental elements — including pollution, toxic chemicals, contaminated water or food and waste from landfills. Even relatively low levels of exposure to pollution and environmental hazards can adversely impact the health of children — contributing to lower birth weights, lower test scores and lower earning potential as adults.^{722, 723}

A vast majority of environmental health threats could be prevented — and renewed strategies should focus on promoting environmental justice. Renewed efforts should be made to ensure every community has safe and clean water, air and food — and every American can live in a healthy, safe home and neighborhood.

- More than half a million children ages 1 to 5 still suffer from lead poisoning.⁷²⁴ Rates of lead poisoning are highest among children living in poverty (4.4 percent) and Black children (5.6 percent).^{725, 726, 727} A majority of cases are from exposure to lead paint in older homes: around 4 million homes with young children are estimated to still contain lead threats; but there are also cases of exposure through contaminated water and exposure to lead paint through schools or commercial buildings. Medical and special education needs per year per child with lead poisoning are around \$5,600.⁷²⁸
- More than 12 percent of children in families living in poverty have asthma, compared to 8.2 percent of middle and higher income families. In the past decade, asthma rates have increased by nearly 15 percent overall and by more than 50 percent among Black children. Children living in low-income housing have higher exposure to indoor environmental triggers such as pollen, mold, animal dander, cockroaches, rodents and dust mites.^{729, 730, 731, 732, 733} Asthma is the second most costly medical condition among children, at more than \$8 billion.⁷³⁴
- Many children and pregnant women living in multi-unit housing (such as apartment complexes) have a 45 percent



increased level of exposure to secondhand smoke.^{735, 736} Secondhand smoke has been known to cause asthma attacks, bronchitis and pneumonia, ear infections among children, and has been linked to sudden infant death syndrome.⁷³⁷

- Lower-income housing is more likely to be located close to sources of pollution and toxins. For instance, Black and less educated women are more likely to live within 200 meters of Superfund hazardous waste sites or factories emitting toxic releases.⁷³⁸ In addition, the highest concentration of brownfields — lands formerly used for commercial or industrial purposes but are no longer in use — are disproportionately in low-income communities.⁷³⁹

The return on investment for many environmental health interventions can be significant. For lead control programs, for example, for every dollar spent, \$17 to \$221 is returned in health benefits, increased intelligence quotient (IQ), higher lifetime earnings, tax revenue, reduced spending on special education and reduced criminal activity — resulting in a potential net benefit of \$181 billion to \$269 billion.⁷⁴⁰ And, a Boston Community Asthma Initiative led to a return of \$1.46 to insurers/society for every \$1 invested.⁷⁴¹

RECOMMENDATIONS

- **Prioritize environmental health and justice efforts.** Federal, state and local governments should place a high priority on programs to eliminate and reduce environmental threats to the nation’s health, with a particular emphasis on addressing inequities. Efforts like CDC’s environmental health services programs and the Federal Interagency Working Group on Environmental Justice — which works to improve access to affordable, safe, housing while safeguarding the environment — should be extended.
- **Eliminate lead poisoning in children through primary prevention.** Public health efforts — including improving water systems, lead paint remediation and required screening of lead exposure in children — have helped reduce lead poisoning levels by 70 percent since 1990. Policies that provide much-needed services after a child screens positive for elevated blood lead levels are addressing a serious problem too late. Instead, local and state policies need to implement primary prevention strategies to eliminate childhood exposure to lead. The strategies recommended by the CDC’s Advisory Committee on Childhood Lead Poisoning Prevention include data-sharing

between local and state housing and health authorities, prenatal parental counseling, enforcement of lead-safe housing standards and identification of funding for lead hazard remediation.⁷⁴² The American Academy of Pediatrics identifies roles and recommendations for EPA, CDC, HUD, CMS, providers, public health officials and other stakeholders.⁷⁴³

- **Reduce asthma through expansion of the National Asthma Control Program and environmental trigger management:** Home-Based Multi-Trigger, Multicomponent Environmental Interventions can greatly reduce the number of asthma attacks and recurring emergency room visits among children and adolescents.⁷⁴⁴ In order to expand access to these evidence-based interventions, the CDC’s National Asthma Control Program should be further expanded to all 50 states and Washington, D.C. In addition, Medicaid programs in every state should support and prioritize recommended asthma home visiting support and remediation programs.
- **Make public and subsidized housing smoke-free.** Banning smoking in subsidized or public housing is a key strategy for reducing children’s

exposure to secondhand smoke. The U.S. Department of Housing and Urban Development and a set of partners issued a guidance and toolkits for public housing and multi-unit family housing owners, managers and residents for ways to establish and implement smoke-free policies and practices.⁷⁴⁵ CDC estimates nearly \$497 billion could be saved each year if smoking was universally banned in subsidized and public housing.⁷⁴⁶

- **Expand actionable research on the connection between the environment and health, including a Nationwide Health Tracking Network (NHTN).**⁷⁴⁷ While there are clear connections showing the negative impact of lead, mercury and many other toxins on health, more research and surveillance is needed to better understand and locate the impact and scope of different environmental factors on health. A better tracking system could provide “early warning” information about environmental-exposure emergencies, such as the lead water crisis in Flint, Michigan. Additional resources are needed to build out the NHTN system to better identify connections and causes of many diseases, and to expand to all 50 states.

Endnotes

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