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Contaminated Childhood: The Chronic Lead Poisoning of Low-Income Children and Communities of Color in the United States

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AUGUST 8, 2017 DOI: 10.1377/hblog20170808.061398



The water crisis in Flint, Michigan, revealed [systemic government malfeasance](#) that exposed an entire city population to lead-contaminated water. It also alerted the nation to the fact that lead poisoning remains endemic and threatens the livelihood of children across the country. The problem extends beyond Flint—a [recent report](#) identified more than 2,600 areas in the United States that have lead poisoning rates at least double those recorded during the peak of the Flint crisis.

According to the [American Healthy Homes Survey](#), conducted by the Department of Housing and Urban Development (HUD), 37 million homes in the United States have lead-based paint that will become a hazard if not closely monitored and maintained, and, of those, more 23 million homes have one or more significant lead-based paint hazard [See [Editor's Note](#)]. This means one in three homes with children younger than age six—the age group most vulnerable to lead poisoning—contain significant lead-based paint hazards. Outside the home, [leaded gasoline](#) and [lead smelting plants](#) have deposited dangerous levels of lead and other toxic contaminants in neighborhoods across the country.

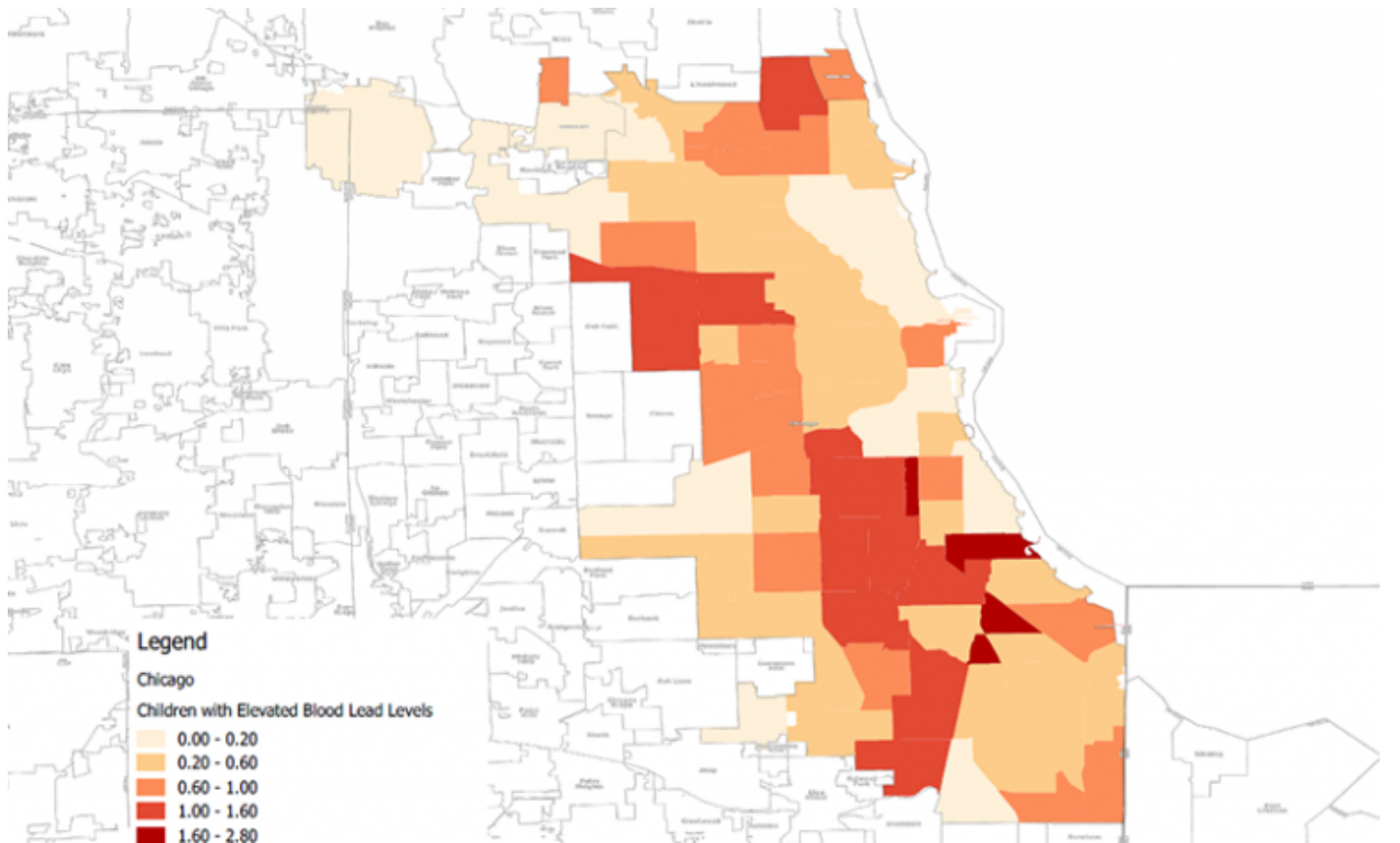
The medical and public health fields and numerous federal agencies agree: There is no safe level of lead in the blood. The effect of lead poisoning on major bodily systems is permanent, and no amount of clinical or public health intervention can reverse it. For this reason, the [American Academy of Pediatrics \(AAP\) has consistently recommended](#) the adoption of health-based policies that require the identification of lead hazards before a

child is exposed to them. Despite knowledge of the permanent morbidities caused by lead poisoning, the overwhelming majority of laws follow a “wait and see” approach. With few exceptions, federal, state, and local policies only require lead hazard identification and remediation after a child develops lead poisoning. The [AAP statement](#) from more than 30 years ago still rings true today: “In effect, children are used as biologic monitors for environmental lead.”

Despite the federal mandate to affirmatively further fair housing, the majority of federally assisted housing is clustered in low-income, segregated areas at high risk of lead poisoning. Decades of government-sanctioned [discriminatory practices](#) have burdened communities of color with increased poverty, segregation, substandard housing, and environmental hazards. Today, the black population has the [highest rate of poverty](#) at 24.1 percent compared to the white population at 9.1 percent. One-third of black children live below the poverty line and in high-poverty areas, [nine times the rate](#) of white children in poverty. The risk of lead poisoning falls disproportionately on minority children, as well, with black children nearly [three times more likely](#) than white children to have elevated blood-lead levels. One [study](#) found “extraordinarily high rates of lead toxicity” in black and Hispanic neighborhoods with “prevalence rates topping 90% of the child population.” The authors concluded, “Lead toxicity is a source of ecological inequity by race and a pathway through which racial inequality literally gets into the body.”

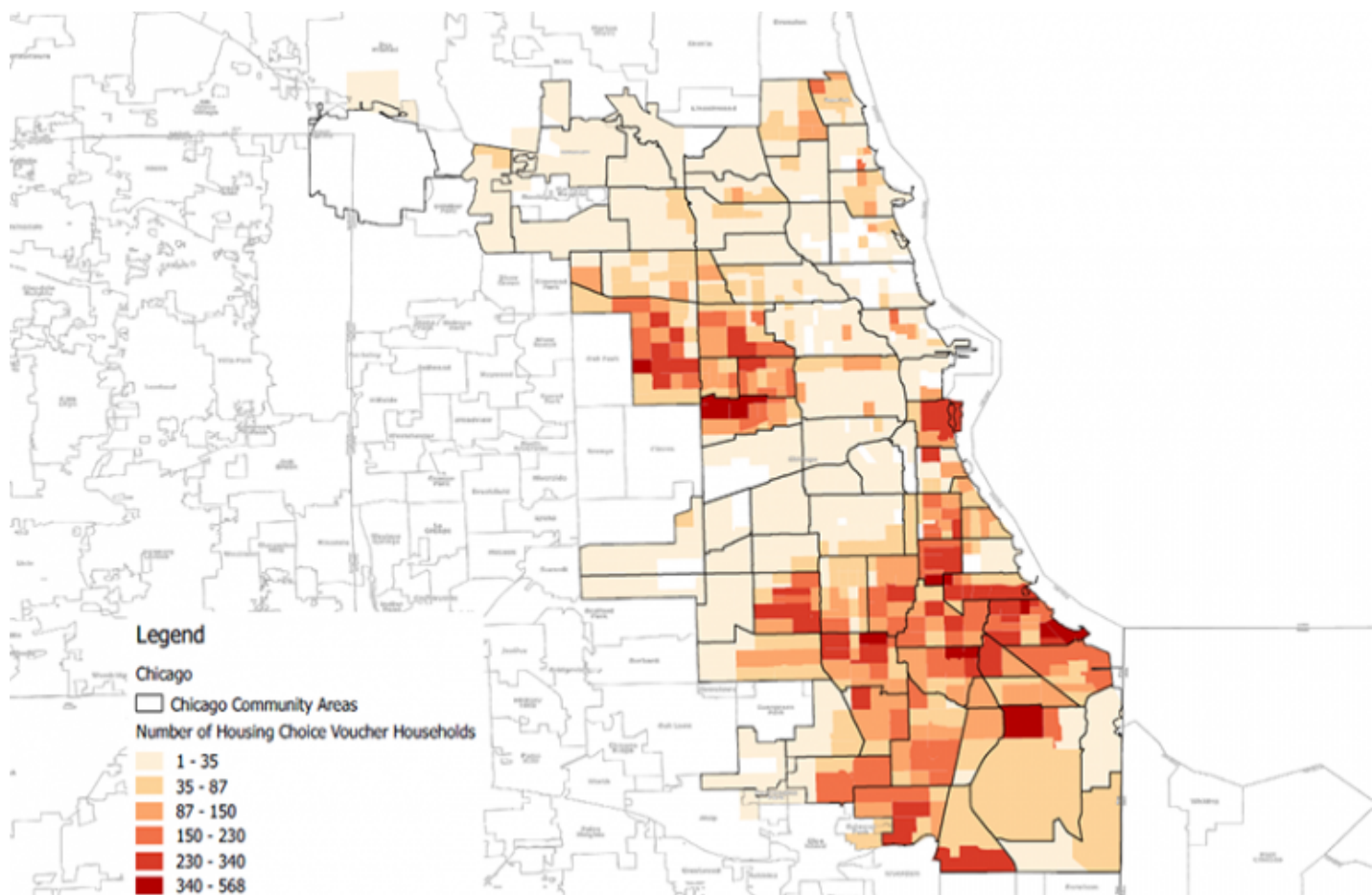
The risk of lead poisoning among children in federally assisted housing, such as the Housing Choice Voucher program and certain project-based Section 8 housing, is particularly acute, with black people disproportionately represented among those affected. In 2016, HUD identified 57,000 federally assisted housing units with lead hazards and 450,000 federally assisted housing units occupied by a child and built before 1978, the year [lead-based paint was banned](#) for residential purposes. HUD estimates that more than [62,000 public housing units](#) are in need of lead abatement. As demonstrated by the following maps, created by the [Sargent Shriver National Center on Poverty Law](#) (Shriver Center), Housing Choice Voucher program households are concentrated in areas with the highest risk of lead poisoning.

Exhibit 1: Number Of Children With Elevated Blood Lead Levels In Chicago



Source: Sargent Shriver National Center on Poverty Law

Exhibit 2: Number Of Households Receiving Housing Choice Vouchers In Chicago



Source: Sargent Shriver National Center on Poverty Law

In January 2017, and for the first time since 1999, [HUD published a final rule](#) reducing [its definition](#) of lead poisoning from “equal to or greater than 20 µg/dL for a single test or 15 µg/dL in two tests taken at least three months apart” to the Centers for Disease Control and Prevention’s (CDC’s) current [reference value](#) of 5 µg/dL. The CDC consistently warns that the reference value, which it is [expected to update](#) in the near future, does not reflect an acceptable level of lead and that primary prevention is critical.

Despite these recommendations, HUD does not require pre-rental lead hazard risk assessments in the Housing Choice Voucher program or project-based Section 8 housing for units receiving less than \$5,000 in assistance. For [Lanice Walker](#) and [Tolanda McMullen](#), Housing Choice Voucher program participants in Chicago, the lack of primary prevention resulted in lead poisoning and numerous disabilities for their once healthy children. Their pre-1978 units did not undergo a lead hazard risk assessment and still passed the housing authority’s [“housing quality standards”](#) inspection. Both mothers believed the “pass” result meant the home was safe for their children. They are not alone. Between 2010 and 2016, [more than \\$5.6 million in federal funds](#) were used to subsidize Housing Choice Voucher program units with known and uncontrolled lead hazards in Chicago alone. As a result, children in 187 homes were

lead poisoned at levels above the CDC reference value, suffering permanent neurological damage. “My baby had been healthy,” Ms. McMullen told the *Chicago Tribune*, then “one day it seemed like the light in his eyes had just gone out.”

Lead hazard risk assessments and abatement are required in public housing and project-based Section 8 housing for units receiving more than \$5,000 in assistance.

However, [enforcement](#) of these [rules is hampered by a lack of coordination between agencies](#). Federal investigators recently determined that the [New York City Housing Authority falsely certified](#) that it had inspected thousands of apartments for lead paint, exposing children in more than 4,700 federally assisted housing units to toxic lead paint. In East Chicago, Indiana, [Stephanie King](#) recently vacated the West Calumet Housing Complex due to hazardous levels of arsenic and [lead surpassing 228 times the maximum permitted levels](#). Like all of the complex’s 1,100 residents, Ms. King was informed of the health hazards in her environment in August 2016, eight years after the area was [designated a Superfund site](#) by the Environmental Protection Agency (EPA). Generations of families and thousands of people have suffered prolonged exposure to neurotoxins and carcinogens since the complex was first erected in 1966 on the former site of the US Smelter and Lead (USS Lead) Refinery and near other smaller smelting plants. West Calumet is not an isolated incident. Approximately [70 percent of the nation’s federally assisted housing](#) is located near one of the country’s 1,400 Superfund sites.

Racial bias explains, in great part, the lack of robust lead poisoning prevention policies and the persistently high rates of lead poisoning among communities of color. When lead poisoning became the focus of public health departments and first gained attention from the media in the 1950s, it was defined as a [problem for poor black and Latino children](#), blamed largely on their parents instead of on substandard conditions, ineffective policies, or the lead and paint companies that introduced the toxin into homes in the first place. According to [historians](#), the then-director of health and safety for the Lead Industry Association argued in 1956 that the problem was the “slums” and its occupants: “Most of the cases are in Negro and Puerto Rican families, and how ... does one tackle that job? ... Until we can find a means to (a) get rid of our slums and (b) educate the relatively ineducable parent, the problem will continue to plague us.”

As recently as 2016, former Indiana Governor (and current vice president) Mike Pence [refused to provide disaster relief](#) to move families out of the toxic West Calumet Housing Complex and surrounding areas, where the population is 99 percent black. He did not hesitate to provide [assistance to Greentown](#), Indiana, when the lead content of its water was slightly elevated. Greentown’s population is 97 percent white. As [Nicholas Kristof](#) noted in an op-ed in the *New York Times*, “The continuing poisoning of half a

million American children is tolerated partly because the victims often are low-income children of color.”

A [recent *Harvard Environmental Law Review* article](#) discusses the legislative history of federal lead poisoning prevention laws and argues that the government’s failure to prevent lead poisoning in federally assisted housing is not only an aberration from the duty to provide safe and decent housing and prevent environmental injustice, it is also a violation of major civil rights laws, including the Fair Housing Act, Americans with Disabilities Act (ADA), Title VI of the Civil Rights Act, Section 504 of the Rehabilitation Act, and the Affirmatively Furthering Fair Housing rule. In fact, residents of the West Calumet Housing Complex, represented by the Shriver Center, made a successful [Title VI complaint](#) against the East Chicago Housing Authority. Similarly, both Ms. Walker and Ms. McMullen, the Housing Choice Voucher program participants whose children developed lead poisoning, prevailed under the ADA and received reasonable accommodations in the form of an emergency move, lead hazard risk assessment, and remediation of their federally assisted housing units.

According to Gerald Markowitz and David Rosner, the authors of [Lead Wars](#), countless children over the past century would have escaped lead poisoning but for government complacency and harmful policies that go against the longstanding and prevailing science on the harmful effects of lead. Unfortunately, the Trump administration has yet to demonstrate the ability or willingness to champion or fund lead poisoning prevention. In response to the reforms required by President Donald Trump’s [executive order](#) to reduce regulatory burden, the EPA proposed cutting more than \$16 million in funding from lead poisoning risk reduction programs and eliminating lead hazard reduction regulations. The EPA received [an earful from commenters](#) defending the necessity of the Lead Renovation, Repair, and Painting Rule; the Lead Abatement Rule; and the Lead Disclosure Rule. Commenters also [urged the EPA to update the lead hazard standards](#), which scientists say are set far too high to be protective. Numerous [advocacy organizations recently sued the EPA](#) over unnecessary delay in replacing these antiquated standards with health-based ones.

While the United States has made some progress since the scourge of lead poisoning was first acknowledged, HUD and most cities across the country still require that a child must be lead poisoned before lead hazards are removed from certain federally assisted housing and nearly all private housing. Both [EPA administrator Scott Pruitt](#) and [HUD secretary Ben Carson](#) have expressed a willingness to protect children from environmental harm, including lead hazards, and have the authority to do so. The recently passed [Consolidated Appropriations Act of 2017](#) and reports from Congress [direct HUD and the EPA to advance federal programs and improve regulations](#) aimed at addressing

lead poisoning. For example, the 2017 act mandates that the EPA increase trainings on proper lead reduction practices and evaluate and revise accordingly the lead hazard standards for lead-contaminated dust and soil. It also directs HUD to identify and disseminate best practices on making and keeping units lead-safe; provide training to public housing authorities; and increase tenant awareness around lead poisoning. According to a [report from the House Appropriations Committee](#), HUD has the authority to conduct pre-rental lead hazard risk assessments in all federally assisted housing units, including in rental assistance programs such as the Housing Choice Voucher program. Secretary Carson and Administrator Pruitt have yet to exercise this authority.

Ultimately, the end of the lead poisoning epidemic requires addressing its underlying causes, such as housing quality, poverty, racial inequity, and environmental injustice. As an immediate step, it is critical that federal, state, and local governments engage in primary prevention practices in both private and federally assisted housing that include the identification and abatement of all lead hazards before a child is lead poisoned; increase enforcement, oversight, and reporting requirements; dedicate meaningful funding for lead poisoning prevention and hazard abatement activities; increase affordable housing and the [development of healthy communities](#); and comply with fair housing and civil rights mandates.

Locally, individuals and health care providers can be instrumental in lead poisoning prevention. For example, providers can engage in universal screening for children younger than age six, collaborate with early intervention and special education systems, and compare public health data on the location of lead hazards with addresses in the electronic medical record to identify lead poisoning risk before children are exposed. Community leaders should examine their jurisdiction's approach to lead poisoning prevention and proactively identify policies that could negatively affect health outcomes. Local governments can also work with contractors to ensure that the federal rules are followed to prevent the spread of lead hazards in the neighborhood. In addition, local public health departments can employ the community-based participatory response methodology to involve community members most affected by lead poisoning in defining the problem and developing a meaningful solution. Ultimately, the elimination of lead poisoning is predicated on a [local commitment](#). National nonprofits, including [Green and Health Homes Initiative](#) and the [National Center for Healthy Housing](#), have developed detailed strategic plans and robust policy recommendations for ending lead poisoning.

The societal benefits of addressing lead poisoning are great. According to [Elise Gould](#), for just one cohort of children, the “net benefit of lead hazard control ranges from \$181 to \$269 billion, resulting in a return of \$17–\$221 for each dollar invested in lead hazard control.” These figures are conservative at best. Senator Ralph Yarborough's (TX-D) 1970

testimony on lead poisoning still applies today: “We have a responsibility to protect the health of America’s children by providing the safe, decent, and nontoxic surroundings that they deserve.” If US policy were to reflect this duty, childhood lead poisoning could be eradicated. The alternative—government complacency and ineffective policies—will permanently alter the lives of millions of children for the worse.

Editor's Note

This post was updated to reflect that the Title VI complaint that Shriver Center brought was against the East Chicago Housing Authority.

Editor's Note

A [previous version of this post](#) incorrectly cited the Healthy Homes survey report as showing that the 23 million homes with lead-based paint hazards were a separate group from the 37 million homes currently at risk of developing future hazards. In fact, the 23 million homes are segment of the total 37 million homes referenced in the report. The error has been corrected.

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JW • 4 years ago

So we know the problem, who do you recommend pay the billions and billions and billions it will cost to clean up the mess? Taxpayers? the very people directly affected? Who actually has jurisdiction in these cases? The cities? the counties? the states? the Feds? The only thing HUD does is spend millions of dollars on study after study resulting in the same conclusions. HUD, the most inept and corrupt federal agency has failed on every level since it was created in 1965. They knew when they built these projects the area was contaminated. Who pays? Who is going to make them pay? I sincerely doubt you will see the needed investment in these old rust belt cities in low income areas, the politicians don't need their votes and most of the people don't vote anyway. The situation in Flint is still as bad as it was two years ago, the kids there will be grown adults before all the pipe replacement is completed.

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DOI: 10.1377/hblog20170808.061398

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