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SOUTH SIDE WEEKLY

The South Side Weekly is an independent nonprofit newsprint magazine written for and about neighborhoods on the South Side of Chicago. We publish in-depth coverage of the arts and issues of public interest alongside oral histories, poetry, fiction, interviews, and artwork from local photographers and illustrators. The South Side Weekly is dedicated to supporting cultural and civic engagement on the South Side and to providing educational opportunities for developing journalists, writers, and artists.

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LIVING WITH LEAD



Flint. East Chicago. Our own city's parks and schools. More than 2,000 years after humans first described the dangers of lead, the metal continues to do irreparable harm.

There is no safe level of lead, and even small amounts in the body can cause developmental delays and cognitive problems in children. Some researchers have linked childhood lead poisoning to spikes in violent crime; others have claimed that the widespread use

of lead in ancient times contributed to the collapse of the Roman Empire. And while we're doing a much better job now to reduce lead poisoning levels, nearly 80,000 children under age six were found to have elevated blood lead levels last year in the United States. Humans are still exposed to far more lead than our pre-Industrial Revolution ancestors, says Patrick MacRoy, former head of Chicago's lead program. "In a broad sense, even levels that seem very low are, on an evolutionary scale, fairly high exposures for humans," he says.

The recent crises in the Midwest have highlighted the dangers of lead in water and soil, two sources that were given little attention until recently because of their minimal contribution to lead poisoning. But as we've successfully reduced the amount of lead in houses and in the air, the sources of lead have become more and more diffuse. We now realize that we need to look at the whole ecosystem of lead, including water.

"Lead is a cumulative toxin," MacRoy says. "You're exposed to lead in a lot of different ways and you want to reduce all of those exposures."

This special issue, produced by City Bureau reporters, dives into all the ways people are exposed to lead in Chicago and what we can do to help make our city safer for those most at risk of lead poisoning. You will meet some of the people whose lives have been upended by lead and some who are on the front lines fighting for changes in how our government handles the toxin.

We will be hosting several community events in 2017 aimed at informing our neighbors about lead hazards and how to best prevent and treat lead poisoning. Subscribe to our newsletter at www.citybureau.org/newsletter to receive updates about all of our events. We welcome your input and encourage you to explore sources of lead in your own neighborhood by texting the word LEAD to 312-697-1791.

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ROUND ZERO

Lead in	Chicago's pipes.
TIMNA.	AXEL

PATHS TO CONTAMINATION

Lead in Chicago's homes and parks.
TIMNA AXEL & ENRIQUE PEREZ

STAYING AHEAD OF THE CURVE

Lead in	Chicago's schools.
DARRYL	HOLLIDAY

THE FIGHT FOR EAST CHICAGO

Lead in	an Indiana	city: a photo	essay.
ALYSSA	SCHUKAR		I 2

ACROSS THE CITY, OVER THE YEARS

What we kno	ow about	lead levels	in Chia	ago.
ERIC SHERM	IAN & D	ATAMADE		т6

KEEPING KIDS ON TRACK

Stopping lead poisoning before it starts.		
NISSA RHEE	т 8	×

To learn more about City Bureau, visit our website

citybureau.org

Find links to additional online resources at citybureau.org/lead



Cover photograph by Alyssa Schukar. For the full photo essay, turn to page 12.

Ground Zero

Why lead pipes in Chicago have the nation's experts worried

BY TIMNA AXEL

earing glasses and a heavy green sweater, Patrick MacRoy kneels down in the sweltering basement of his yellow brick Andersonville condominium and presses a key against the metal pipe. As he begins scratching it, silver filings shave off the pipe and fall onto the floor. That's how MacRoy, the former director of the city's Lead Poison Prevention Program, knows that the pipe (known as a service line) that brings drinking water from the city's water main into his twenty-four-unit building is made out of lead, a toxic metal long known to cause cognitive and physical impairments in children.

Experts say Chicago has more lead service lines than any other American city, yet MacRoy never thought to check his own service line because of the size of his building. Larger buildings require bigger pipes, and lead is a soft metal typically used for narrower lines. Then his condo association installed a sprinkler system in the courtyard, and MacRoy spotted a note that the plumber had written on his estimate: "Water main - 2 inch lead."

"I looked at that and went, 'Really?" MacRoy says. He ordered a water testing kit from the city, but it did not detect elevated lead levels. Still, MacRoy wasn't convinced,

since he knows all too well that contaminated pipes sometimes have clean water readings.

"If the pipe is disturbed, whether through construction or some sort of shaking, it releases particles of lead that come through in an unpredictable way," he says.

In fact, national evidence is mounting that the chemical treatment of lead pipes—a common method used by cities like Chicago—is inadequate to keep the toxin out of drinking water, particularly when there is any street disturbance due to construction, large trucks on the road, or even changes in temperature. Yet as other cities such as Milwaukee and Cincinnati begin to address the problem by systematically replacing their lead service lines, and the Environmental Protection Agency considers requiring cities to do so, Chicago is leaving residents and property owners to deal with the problem. In fact, the city is in the middle of ramping up its 900-mile water main infrastructure project without taking inventory of lead service lines and with no plan to replace them.

Service lines are the pipes that connect iron water mains running under the streets into buildings to provide drinking and cooking water. To prevent lead from leaching directly into the water, the pipes are chemically treated with orthophosphate,

which coats the lead pipes and prevents corrosion. This coating comes off when the pipes are disturbed. Without that protective orthophosphate coating, water can quickly become contaminated by lead—as it did in Flint, MI, where one sample had astronomical lead levels of 13,200 parts per billion, and tens of thousands of children were exposed to the poisonous substance.

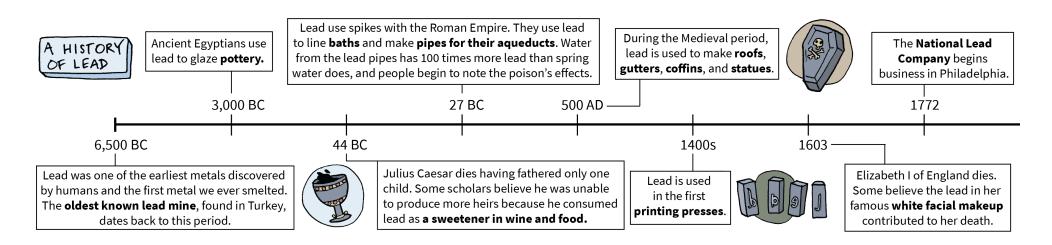
In Chicago the use of lead in pipes was required by plumbing codes until Congress banned it in 1986, despite the fact that most major cities stopped using it in the 1950s. Estimates show that eighty percent of Chicago's properties have a lead pipe, an unusually high number that prompted Tom Neltner, chemicals policy director at the Environmental Defense Fund, to call the city "ground zero for lead service lines."

To compound the problem, in Chicago, the entirety of the service line stretching from the public water main to the home is considered private property. (Elsewhere, lead service lines are owned partially by the water utility and partially by property owners.) That's why the city claims it is not taking action to inventory or replace any lead service lines—it doesn't own them. The city will only perform spot repairs when there is a leak in a service line that's in the public way,

according to Gary Litherland, a spokesman for the Department of Water Management, "because it's in the public way [and] we feel the responsibility to the public to keep that public way safe."

But experts on lead say that as a matter of public health, the city should take action. They argue that the most cost-effective way of dealing with the lead pipe problem in Chicago is to replace them when the city opens the street to replace water mains. Since the pipes would be exposed, residents would not need to do any additional digging to reach the pipes. In places like Milwaukee and Green Bay, WI, the city is sharing the replacement cost with homeowners. Other towns have applied for federal funding—just this weekend, the U.S. Senate passed a bill that would provide \$170 million to Flint to replace its 29,000 lead service lines. Some began their pipe replacement programs as early as the 1950s.

Since 2009, Chicago has conducted more than 1,600 water main and sewer replacement projects, a necessity given that many of the city's water mains are more than one hundred years old. Not only is each project an opportunity to take stock of the lead hazard underground, but the construction could agitate the connected



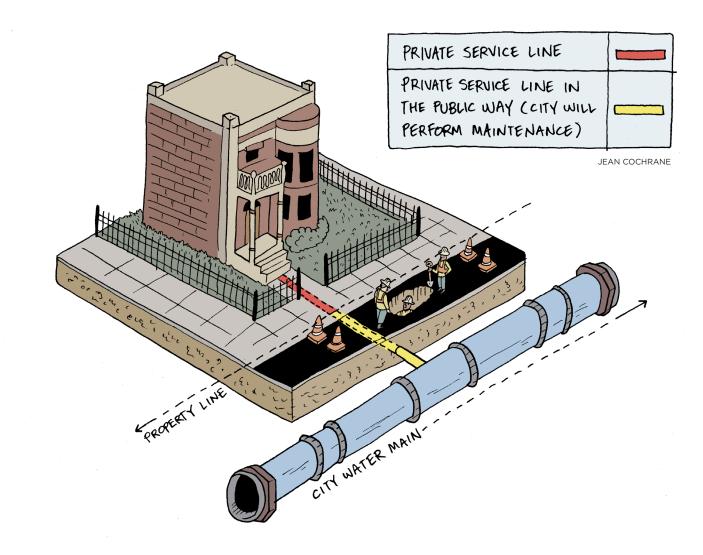
service lines and cause lead to leach into the drinking water.

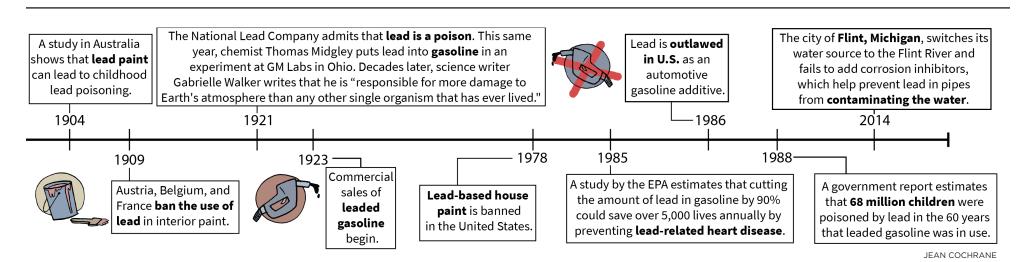
MacRoy says he thinks it's a "disservice, from a public health standpoint," for public officials to not take action to fix lead service lines. "For the city to just kind of wash their hands of it and say, 'Oh well, it's the property owner's responsibility,' denies the fact that they were the ones who mandated this connection, particularly so long after everyone else stopped," he says.

Recently, Humboldt Park and West Ridge residents joined together in a class-action lawsuit contending that city officials knew about the risk of toxic lead levels entering tap water from construction projects and did not adequately warn residents or do anything to mitigate the problem. The lawsuit seeks to have the city pay to replace all lead service lines with copper and to establish a trust fund to pay for lead-related medical monitoring. In October, a judge granted the city's motion to dismiss the suit without prejudice, but the plaintiffs say they will resubmit the case next month.

Meanwhile, the Department of Water Management announced in August that it would conduct a study to determine the possible impacts of water main construction on water quality for homes with lead service lines.

It's a move that Mark Vazquez, an attorney representing the residents in the class action suit, says, "is focused on disproving the conclusion that water quality experts have come to around the country ... Now is the time to be focusing on a solution. And it seems like the city is still intent on determining whether or not there is a problem." *







This summer, as national attention turned to lead poisoning, Chicago began testing water at public parks and schools to find out where and how residents are exposed. But paint remains by far the most common source of lead exposure for children today—and the toxin can take multiple pathways to enter and build up in the body.

BY TIMNA AXEL & ENRIQUE PEREZ

ead, a soft and naturally occurring metal, is one of the best-studied toxic substances known to humans—it is especially harmful to the brain, kidneys, bone marrow, and other body systems of young children. Childhood lead poisoning has been dramatically reduced over the past few decades, as lead has been phased out from gasoline, food and beverage cans, house paint, and other common sources. In 1978, there were about 14.8 million poisoned children in the United States; by the early 1990s, that number had declined

to 890,000 children. In Chicago, the rates of elevated blood levels in children have decreased from one in four to fewer than one in one hundred children tested.

Still, the Centers for Disease Control and Prevention in 2015 found close to 1,000 children in Cook County with elevated blood levels. Many more children likely go uncounted because their results fall under the CDC's "reference level" of five micrograms of lead per deciliter of blood, but the reality is that any lead in the body can be dangerous.

Read on to follow two different paths to lead exposure that have been identified in the city, and how families and children are affected by the poison.

Paint in Homes

In 1978, the federal government banned the consumer use of lead-based paint, but more than 75 percent of houses and apartments in Chicago were built before 1970, according to the Metropolitan Agency for Planning, and the city itself has lead hazards in its paint or soil. Four to five times more children in Chicago are affected by lead poisoning in houses built before 1950 than in other cities, according to civil and environmental engineer Marc Edwards, who presented the information to the Centers for Disease Control and Prevention in 2010.

In most Chicago homes, deteriorating lead-based paint is the main issue as it chips and becomes dust, prominently gathering in areas like windows, porches, doors, and doorframes that are easily accessible to children. Paint dust was likely the culprit when Yasmine McCray was diagnosed with lead poisoning at two-and-a-half years old, says her mother Mary McCray. Yasmine had a blood lead level of eleven micrograms per deciliter, just above the level at which the Chicago Department of Public Health must be notified so that it can investigate possible lead hazards in the home.

Provisions are in place to make sure residents know about lead hazards when they move in: A lead disclosure form, which should be given whenever a residence is leased out or sold, should detail the location of the lead-based paint and the condition of the painted surfaces. Home buyers are also allowed ten days to conduct a paint inspection or risk assessment for lead-based paint hazards before they buy. But those regulations are hard to enforce, and often require buyers and renters to be discerning in a situation where they might not have much choice.

In the McCrays' case, after Yasmine's blood results came back, a CPDH inspector was sent to their home in Hyde Park. The inspector found old paint peeling on the walls, which were then scraped and repainted. Even so, the McCray family soon moved to Auburn Gresham. But the damage was already done: when McCray noticed that her daughter's behavior had become overly hyper, a doctor drew the connection to lead exposure, she says.

Critics say that the city's lead policies are reactive, not proactive. Inspections only take place if the owner or tenant requests them or if a child has high blood-lead levels and CPDH is alerted, as in the McCrays' case. And children don't get tested regularly for lead.

"The only two mandates for getting tested that I know of are: [Medicaid] has a mandate—I'm not sure how strictly it's followed—and for entering the Chicago Public Schools system you're supposed to

estimates that a third of its housing stock have a blood lead test on file," says Eric Potash, a lecturer at the University of Chicago's Harris School of Public Policy. "But I also don't know how rigorous that testing is. The big caveat with the CPS mandate is that most people don't enter CPS until they're five or six [years old] and then it's way too late."

> The city has limited resources when it comes to lead inspection, says David Jacobs, an adjunct associate professor at the University of Illinois at Chicago School of Public Health.

> "The Chicago Department of Public Health has ten [lead] inspectors, which is ridiculously low considering the number of units. It is estimated that there are 5,000 to 10,000 units with lead hazards in Chicago," he says. A department spokesperson says it conducts between 800 and 1,000 home inspections every year.

> Another factor is an ongoing change in public housing. As cities like Chicago have torn down housing projects and moved toward Section 8 vouchers over the past twenty-five years, low-income families have become more at risk. Public housing units were inspected regularly for lead due to federal oversight, but Section 8 housing is not held to the same standards, says Howard Ehrman, a doctor and environmental activist who was a former top official in the Department of Public Health.

> With limited city resources, researchers are looking for ways to predict when and where children are at risk for lead poisoning, in order to concentrate efforts on the hardest-hit communities. Potash is working with graduate students to build a predictive model based on data, such as building inspections for lead hazards, locations where children have been poisoned by lead in the last twenty years, rates of renting and homeownership, and whether or not people in a neighborhood have health insurance.

> Potash says his model can predict households that likely contain lead hazards and have children younger than one year old. They are now running a pilot outreach program, partnering with the CDPH, landlords, and other agencies (including integrating with electronic medical record systems) to alert at-risk households and provide inspection information and remediation services.

> "The CDPH only has resources to help a couple thousand kids each year," says Potash. "By using the model to target the resources, you dramatically improve the efficiency and effectiveness by something like three times



Saeri Geller and Brent Warren's son Ian was fifteen months old when his doctor found that he had high blood lead levels. Since then, Ian has gone through two rounds of drug therapy and his parents are working to clear their house of lead.

Geller: In November 2015, we moved into my husband's grandmother's house in Park Manor. I got a home lead test and I tried testing the windows and they came back negative. But they only test the top layer of paint, and I didn't really test where it was chipping because I didn't know if it would work properly on chipping paint.

When my son, Ian, was nine months old, the doctor did a blood lead test and they told me it was normal. I found out later that it was four micrograms per deciliter and I was really upset. The city deems a zero-to-four blood lead level as normal, which it shouldn't, because there's no safe lead level in children. And they don't tell parents that.

Shortly before his fifteen-month appointment, I saw him putting paint chips in his mouth. I requested another blood lead test from the doctor and that's when it came back elevated, at sixty-three micrograms per deciliter. We went to the emergency room and stayed overnight, and they gave him chelation therapy. They discharged us with the medication and that was the start of our adventure. The first round of medication was two and half weeks long, and the second was twenty-eight days.

Warren: In the meantime, we've been in, but not everyone does.

The Parents

A conversation with Saeri Geller & Brent Warren

AS TOLD TO NISSA RHEE

trying to make sure our house is safe, which has been a huge challenge. The government sent a housing inspector out, who said we would get the results back in a few weeks. We asked him to come back to test the water, but he wound up giving my mom the paperwork that stated all this work needs to be done by October 10 or else the city could take us court. But that was never explained to us.

So we're here waiting for the city to get back to us, spinning our wheels and wasting time and money, because Saeri and Ian are living elsewhere. In the meantime, the inspector passed away and we couldn't get a hold of anyone from his department.

The Tuesday after Columbus Day, his supervisors told us that our case has gone to court because we hadn't completed the work on time. We still haven't gotten a court date, but the work is in progress as of the beginning of December and we hope to be all living under one roof again as a family by the holidays.

Geller: This isn't really something that you put behind you. And it's not something that you can really forget about, because the lead isn't really gone from the house. It's painted over. It's there, it's around us.

My message to other parents is to educate yourselves. Be aware of what chipping lead paint looks like. Get your houses tested; it's worth the money. I've been out of my house for four months now and it's been awful. I've been so blessed and lucky to have friends and family who will support me and take me

that much. You could potentially help three times as many kids."

Water in Parks

This October, Chicago Park District officials announced that all of its drinking fountains and sinks had been tested for lead. The results: at least one fixture in forty-four percent of the District's parks had lead levels that matched or exceeded fifteen parts per billion, the action level set by the Environmental Protection Agency at which water systems are required to step up their corrosion control or replace pipes. Specifically, fourteen of 544 indoor fixtures and 445 of 1,891 outdoor fountains tested above this level and were immediately turned

While contaminated fountains were found in parks throughout the city, certain neighborhoods like Auburn Gresham, where every park contained fixtures with elevated lead levels, were especially hard-hit.

This was news to McCray, who moved away from her lead-contaminated Hyde Park home to Auburn Gresham, and whose kids had been playing on the jungle gym at Foster Park. Three of the park's outdoor fountains had elevated lead levels, testing showed. At Mahalia Jackson Park, about 1.5 miles away, both drinking fountains had elevated levels of lead, with one testing at 361 parts per billion. Two other Auburn Gresham parks, Dawes Park and O'Hallaren Park, also had contaminated fixtures.

Yasmine's pediatrician didn't recommend any medical treatment for the lead in her blood, but she has been tested every year since her diagnosis. McCray says her lead level has decreased over time, and she is now ahead of her class at school. Still, she worries about her kids drinking lead-contaminated water at the parks: "What if they get lead from the sprinklers?" she says.

While most studies show that exposure to lead-contaminated water is not likely by itself to elevate blood lead levels in most adults, there is a danger to infants and pregnant women who may be using the water. Pregnant women especially are at "the most sensitive time" for lead poisoning from water, says Helen Binns, a pediatrician who directs the lead evaluation program at Lurie Children's Hospital of Chicago.

Fountains that the Park District did not shut off may be dangerous even if they didn't exceed the EPA's "action level," Binns says. She and other lead experts agree that the EPA level is meant to be an engineering marker, and that no level of lead is safe inside the human body. "The fifteen parts per billion of lead in water is not a health-based standard. We would prefer that it be two, or something really low," Binns says.

There is no federal regulation requiring water testing for park facilities. Nevertheless, a few U.S. cities have conducted similar tests of parks and other public facilities, including Portland, OR, and Ithaca, NY, both announced around the same time this

The Park District has not yet identified why so many of its water fixtures have elevated lead levels, and the situation could get worse in the winter when all fixtures are turned off-unused fixtures are more likely to have contaminated water, which is why health departments recommend people regularly flush their pipes. Still, city officials emphasize that the results show no systemwide contamination.

"If it were because of the water that was coming through the pipes themselves, we would expect all of the faucets within a school or a park to be affected," says Dr. Julie Morita, commissioner of the Chicago Department of Public Health.

As of late November, Jessica Maxey-Faulkner, spokeswoman for the Park District, could not provide details about whether the district is working with Department of Public Health or Water Management officials to determine how to prevent future lead contamination at the water fountains. The Chicago Park District is still investigating the cause of the contaminated fountains, Maxey-Faulkner says. *



The Student

Maya Orr

AS TOLD TO NISSA RHEE

Maya, 14, is a freshman at Foundations College Prep in Roseland. Foundations is a charter school, so Chicago Public Schools did not test its water for lead. But Maya and her fellow students tested the water at school and at their homes as part of a community service project when she was in eighth grade.

The first time I heard about lead was from my parents. My cousin ate some paint with lead in it when he was four years old, and we think he got autism from it. He's 12 now and he's smart and all, but he can lose his temper. Sometimes he just zones out. And he doesn't know how to read.

Having a cousin that grew up with lead poisoning made a big impression on me. I didn't even know that something could be dangerous in paint until my parents told me about what happened to

The first I heard about lead in water was from my community service teacher last year in eighth grade. After what happened in Flint, Michigan, our class started talking about it. Our teacher told us that since you don't know if lead is in your water, you have to be careful. I was scared, because you could be drinking a whole bunch of water and there might be

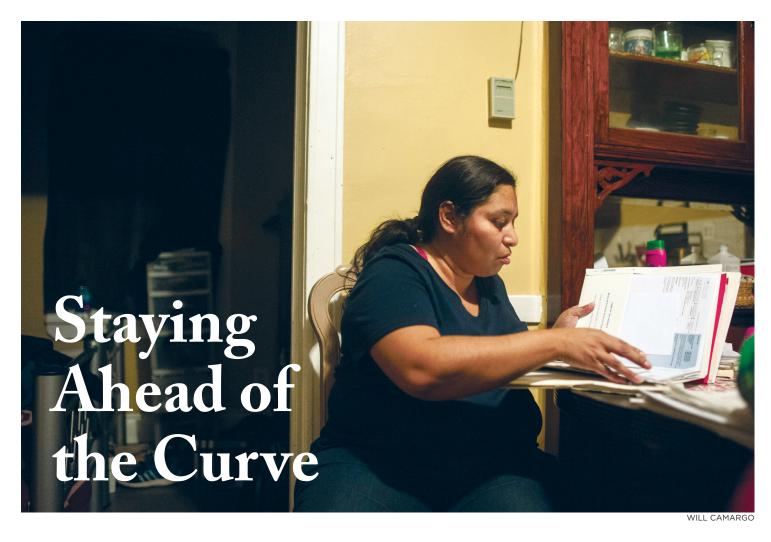
Our teacher gave us two containers each to take and test the water in our homes. We had to make sure nobody used the water before us in the morning and then put the water straight into the

I wasn't sure if our water was going to have lead in it. I thought maybe it would, because when the city people were working on our block's pipes, I turned the water on and a whole bunch of dirt came out. The city said you have to run your water for a long time so all the dirt and stuff will come out.

I don't remember the exact number that our water came back at, but thankfully it was safe. The school also didn't have lead. Now when I go to school, I feel safe because it's been tested. Our teacher told us that we need to use less faucet water. I drink bottles of water now, because they go through a filtering machine. And if I do drink faucet water, I use the filter hooked up to my sink at home.

At the park, I don't like drinking out of a fountain because people are putting their mouths on the faucet and there are germs. But then you never know if there is lead there, too.

I think people should check and see if they're safe or not, especially if you have kids. My cousin was little when he ate the paint. Kids don't know what they're doing. I think if you have a baby on the way or you have kids in the house, it should be safe for them.



Anna Espinosa, 38, sorts through lead test results for her son Moises. 17. at the family's Back of the Yards home.

No matter how or where a child becomes poisoned by lead, the next big fight of their lives is in schools—where specialized attention could help mitigate its long-term effects.

BY DARRYL HOLLIDAY

e will spend whatever it takes. Whatever that cost is, widely?" one attendee asked. we will pay it."

Those were the words of Chicago Public Schools CEO Forrest Claypool at a community event in June, just as CPS began testing its more than 6,000 sinks and faucets for lead-contaminated water.

Anna Espinosa, 38, was in the audience that night. School officials had planned for a crowd at the Back of the Yards high school gym, fully expanding the orange bleachers toward the middle of the basketball court where a table was reserved for CPS, Department of Water Management, and Department of Public Health officials. But only a handful of parents, teachers, experts, and reporters showed up, so the attendees were relocated to a dozen chairs around the table

Claypool was soon peppered with questions.

"Why weren't the meetings publicized

"They were," Claypool replied.

"Why did you wait to test until the media started investigating?" another asked.

"CPS launched this program, not the press," Claypool said, bristling slightly at the insinuation.

And the exposure risks for CPS students from school fixtures? "Basically nondetectable," Claypool assured those gathered on the court.

But the newly launched water testing was only one reason Espinosa attended the meeting that day. At the age of four, her autistic seventeen-year-old son had already been poisoned by lead in the family's last home, she said, later telling reporters that the CPS officials she had just listened to were "full of it."

Instead, Espinosa wanted to know what CPS would do for her son in his last years at Thomas Kelly High School. In other words, how does Chicago's public school system plan to help students who were poisoned by lead as children and are now suffering the effects as young adults?

While CPS works to find and eliminate lead-contaminated fixtures in its buildings, students who arrive at school already exposed to lead still have limited options for treatment. Though the city imposes mandatory lead screenings on children before they turn six years old, a review of departmental policy shows that CPS has no official or comprehensive policy on how to assess and assist lead-affected children. Considering the symptoms and their effects-ranging from low grades to violent behavior-and compounded by budget cuts, the public health crisis of lead poisoning extends beyond today's water fountains. What schools do and do not provide to children affected by lead will shape the futures of thousands of young

Chicagoans.

An Invisible Legacy

The symptoms of lead poisoning include a range of seemingly unrelated ailments like abdominal pain, constipation, sleep problems, headaches, loss of appetite, and memory loss. Many are relatively mild and can be individually overlooked, but, in the case of lead poisoning, could pave the way for a myriad of lifelong effects including irreversible brain damage, aggressive behavior, lowered IQ, growth delays, and poor grades. Recent reports even link childhood lead exposure with trends in violent crime.

"Those [effects] happen even at low levels of lead poisoning. So these kids get poisoned before [age] 5, and they get to school already with learning disabilities," says Howard Ehrman, an environmental advocate, University of Illinois at Chicago

professor and former top official at the Academy where [my children] went also," she Chicago Department of Public Health. "One of the problems we have, not only with lead poisoning but all possible learning disabilities, is the fact that CPS and most public schools have never funded or made it a priority for enough people to do proper testing and then put the children, based on the Americans with Disabilities Act, into the right programs to treat their learning disability."

Symptoms of lead poisoning often do not become apparent until a child has difficulty in school. And while those effects are often translated as bad behavior and underperformance, in a time of citywide cuts and changes to school budgets, which critics say could shrink special education funds, the impact of untreated lead poisoning raises tough questions for communities already facing disastrous levels of unemployment, incarceration, and public school closures.

In 1999, Fuller Park was the community area with the highest incidence of elevated blood lead levels among children tested, with nearly two in five kids testing positive. By 2013, only 2.8 percent of kids tested there had elevated levels. The dramatic decrease can be tied to a number of factors including disuse of leaded gasoline, an increase in lead screenings, and cleanup of lead paint in homes. But lead is an "absolute neurotoxin," according to Ehrman, meaning that babies affected in 1999—now high school students—are likely impacted by the exposure even today.

Among those students is Espinosa's seventeen-year-old son, Moises, who was tested in 2005 and had a lead count of 4.9 micrograms per deciliter, Espinosa says, adding that she believes it was higher in the years before. She says he was likely exposed to lead-based paint in their home, which is how most children accidentally consume lead. But small amounts of lead can accumulate in the body from many different sources.

The family's Back of the Yards neighborhood, where the CPS community meeting took place in June, is part of the New City community area. In 2013, 1.4 percent of children (ages zero to six) tested in New City had elevated blood lead levels, putting the neighborhood fifteenth among Chicago's seventy-seven community areas. Espinosa's son attended schools in McKinley Park, Brighton Park, and Pilsen during that same time frame, some of which had sinks or water fountains with lead-contaminated water during this year's tests.

"I couldn't believe there was lead in my school [Perez Elementary], where I had grown up, and that there was lead in Pilsen

Moises was diagnosed with autism at fifteen years old, and though scientists have not found a causal link between the toxin and autism, childhood lead poisoning has many of the same symptoms as Autistic Spectrum Disorder—and it has been found to contribute to autism severity in lead-

"What we've said is that the risk is low and yet if people want to be tested, they should reach out to their health care providers," she says.

As of December, CPS has spent \$1.9 million and anticipates spending about \$2.3 million total for the first-ever system-wide lead testing of school water fixtures, but when it comes to the root cause of lead, Ehrman

Even if parents were to disclose their children's lead poisoning, there is no official protocol for what teachers should do to help them.

poisoned children.

Espinosa's message for parents today: "Keep insisting on getting the resources.

"There's more resources out there to know where the lead is coming from, how they're getting it, where you could go get more info, [and] how you could get more help," she says.

CPS is scheduled to complete testing of 526 schools by the end of 2016, according to district spokesperson Emily Bittner, who noted that final results from all tested schools will be complete in early 2017. As of December 5, ninety-five school drinking fountains and eighty-nine sinks-thirty-two of which were in kitchens—tested above the EPA "action level" of fifteen parts per billion. Of the 184 fixtures above that level, all were shut down and more than 120 have been returned to service after pipes were flushed, repaired, capped, or replaced, according to school officials. The Chicago Park District went through a similar process this summer.

For many parents and city officials, the full array of park and school tests was worth applauding.

"I have to commend the Park District and CPS for being so aggressive and testing the faucets and the sinks within their buildings and outside," says Chicago Department of Public Health commissioner Julie Morita. "I think it's an extra step to ensure the safety of the water." She added that CPDH is currently working with CPS to mail letters, informational packets, and the results of tests in their schools to parents.

says the city will continue to see cases of exposure until it removes the lead service pipes and fixtures that bring water into schools and homes around Chicago.

Leading the Way

Cuffe Academy kindergarten teacher Jeanine Saflarski says she's happy with how the lead-affected water fixture in her kindergarten classroom was capped and fixed by CPS.

Of the 141 of fixtures tested at Cuffe in August, three tested positive for lead. Two sink faucets, both in pre-K classrooms, tested between twenty-six and twenty-nine parts per billion, significantly higher than the EPA's "action level" of fifteen parts per billion. According to Bittner, the third fixture tested below that level and was flushed along with all other water fixtures in the district.

But zoom out further and a more concerning picture emerges. In 2013, 7.6 percent of children tested from the Auburn Gresham neighborhood, where Cuffe is located, had elevated blood lead levels, ranking ninth out of Chicago's seventyseven community areas. Though experts say Saflarski is unlikely to encounter a severely lead-affected child in her kindergarten classroom today, many of the thirteen-yearolds graduating from Cuffe's eighth grade this year were born during a time when nearly twenty-one percent—more than one in five-of Auburn Gresham children under the age of six who were tested had elevated

blood lead levels.

Saflarski says a teacher is trained to notice the smallest, earliest signs of a learning disability. "You do everything you can in the classroom to try to meet modifications and needs," she says, adding that teachers have protocols in place for kids in need of special assistance such as speech and occupational therapy. The school system even gives teachers lists of children with medical needs like food allergies, she says, which is not the case for lead.

But even if parents were to disclose their children's lead poisoning, there is no official protocol for what teachers should do. Younger children may be eligible for the state's Early Intervention Program, but according to a 2012 report from the Centers for Disease Control and Prevention, "lead exerts long-lasting effects and the effect of lead on a child may not be demonstrable until the child is well into the elementary school years." The CDC report lists researchbacked recommendations for lead-affected people from infancy to the age of twenty-one, including specialized counseling to help with aggressive behavior, nutritional programs, chelation therapy in severe cases to decrease lead content in the blood, and individualized plans that identify, monitor, and assist children who have learning disabilities.

"I think it's terribly concerning that CPS doesn't have a policy," Ehrman says. "The policy should include, number one, a memorandum of understanding, a formal agreement, between CDPH and CPS signed off by the mayor of the city of Chicago saying there will be integration of databases," so that city agencies can share information to identify and help children affected by lead.

Many lead-safe schools recommendations are agreed upon by lead experts, and while CPS does not formally address any of these recommendations in its policies, the district "uses a process called MTSS (Multi-Tiered System of Supports) to identify any students with potential special needs," according to

But a comprehensive school policy on lead is not unheard of. The Connecticut State Department of Education, for example, has published policies designed "to clarify the role of schools in meeting the needs of children and families affected by lead."

In fact, "developing school district policy and procedures regarding children who may be affected by lead" is first on a list of ten distinct ways schools can better serve lead-poisoned youth, according to the

department's website. Other points include educating school personnel, maintaining special-education resources, development of monitoring plans, and referral of lead-poisoned students to enrichment and eligible disability programs.

Likewise, school districts in Boston; Rochester, NY; and Columbus, OH all have posted, or are in the process of creating, policies for school-based lead safety. According to the University of California's Lead-Safe Schools Guide, benefits of a policy include avoidance of unnecessary costs, open communication with parents, better-trained school employees, and evaluation of what works on a local level.

In Flint, MI, a class-action legal battle is currently underway alleging the local public school system is not providing services and interventions that could make a difference in the ability of lead poisoned youth to succeed.

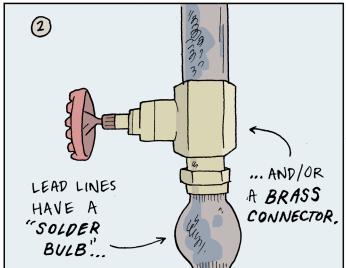
"Since the full magnitude of this crisis became public in 2015, there have been federal and state inquiries, investigations, task forces, declarations, and appropriations. Yet there has been no effective response to address the needs of the thousands of children who attend Flint's public schools," the lawsuit alleges on behalf of fifteen children who were exposed to lead in Flint.

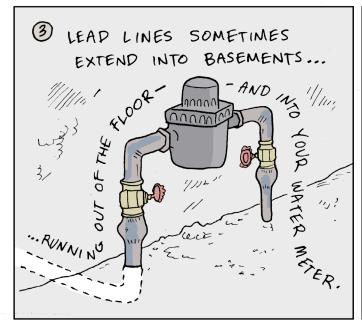
Espinosa, along with many other CPS parents, is worried about the same thing. If no cost is too high for the district to find and repair lead-contaminated sinks and drinking fountains in the schools, what about the costs of ensuring lead-poisoned children get the care they need? *

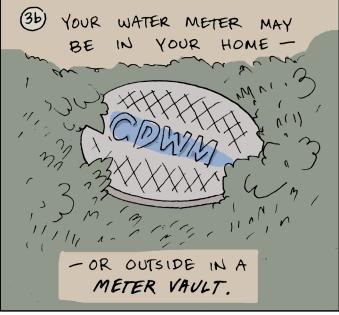
Additional reporting by Timna Axel and Enrique Perez

HOW CAN I TELL IF I HAVE A LEAD LINE?









JEAN COCHRANE

5 Ways to Prevent Lead Poisoning

BY ENRIQUE PEREZ

Protect your home Was your house built before 1978? Keep an eye out for peeling paint: at least eighty-three percent of houses built before that year contain lead-based paint, and paint chips are

one of the most common ways for a child to accidentally consume lead. Call the city's lead hotline at 312-747-5323 to request an inspection or to learn how to get financial assistance for removing lead-based paint in your home.

eighty percent of water lines connecting homes to Chicago water mains contain lead. Filtering your water can greatly reduce your risk of exposure, but not all filters on the store shelf can prevent lead contamination, so make sure to look for the "NSF" mark that means it meets National Science Foundation standards. The product's

label should explicitly state that it will reduce lead levels in water. You can also get your home water quality tested by calling 311 or going to www.chicagowaterquality.org.

Get tested Go to your primary care doctor or pediatrician and get a blood lead level test. If you don't have one, call the lead hotline number, where an operator can connect you with a doctor who will see you for free or at a sliding-scale rate based on your income.

4 **Eat well** A balanced diet can help the body resist the absorption of lead. The EPA lists calcium, iron, and vitamin

C as essential nutrients that will help anyone, especially children, fight potential lead poisoning. They even put together a guide with lead-fighting recipes like grilled cheese and tomato sandwiches and French toast.

Stay informed Check to see how prevalent lead may be in your area by texting the word LEAD to 312-697-1791.

Want more information?

We have a list of links to resources mentioned above at www.citybureau.org/lead.

The Fight for East Chicago

BY ALYSSA SCHUKAR

he West Calumet Housing Complex is home to nearly 1,200 people, located on a seventy nineacre site in East Chicago, Indiana, which the Environmental Protection Agency has declared hazardous to human health. Up until 1985 a lead refinery, a copper smelter, and a secondary lead smelter were also in the area, and as early as 1987, federal and state agencies investigated the site as a potential cleanup priority. But due to limited resources and an abundance of red tape, the site has remained contaminated for decades.

This July, the residents of West Calumet Housing Complex were told they had a year to move somewhere else. Many say that local officials waited too long before telling them about environmental hazards, and they fear uprooting their families and struggling to find affordable housing nearby. On December 10, the EPA planned a meeting so residents could ask questions about the lead cleanup, but it was canceled at the last minute due to a "possible lapse in funding."

"This is not really an explanation," says Roy Morgan, who attends church in East Chicago and is worried about the elderly and young members of his congregation. "I understand about the lapse in funding. But...it's the EPA, aren't they supposed to protect the environment? We really need some answers."

In this photo essay Alyssa Schukar takes a look at the people of East Indiana and an environmental legacy that will affect generations to come.

Photos were taken in summer and fall 2016 and captions reflect the subjects' ages at the time the photos were shot. Additional reporting by Alex V. Hernandez.



Lorenzo "Bambam" Jenkins, 12, his two-year-old niece Laylay Striblin, and his friend Keanthony Brown, 14, spend time at a park near the West Calumet Housing Complex. Jenkins says he's upset that he has to move but that he'll keep up with his friends like Brown if they are able to stay at the same school.







(ABOVE) Lamont Anderson embraces his son Lamont Anderson Jr., 8, whose blood test revealed elevated lead levels. The family moved to Gary, IN, this summer.

(LEFT) Shantel Allen's two-year-old daughter Samira Allen's blood lead levels test results came back at thirty-three micrograms per deciliter, which is remarkably high. Allen says her whole family, including five young children, herself and her husband, have elevated lead levels. "They show all the signs and symptoms of lead poisoning," she says. "They vomit randomly, have headaches."



Logan Anderson, 19 months, plays with his older brother Lamont Anderson Jr., 8, through the window.



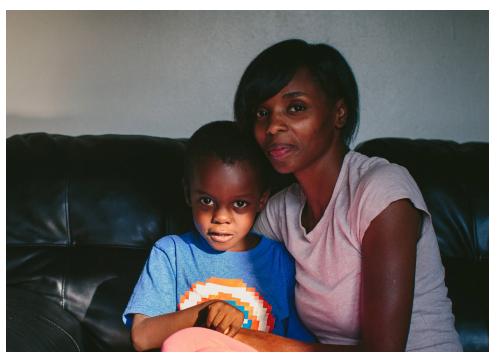


(TOP) Brothers Antwon Jones, at left, and D. Jones (both 18) pose for a portrait near their home. "This is where we hang out every day. We are still here with the lead," D. Jones says.

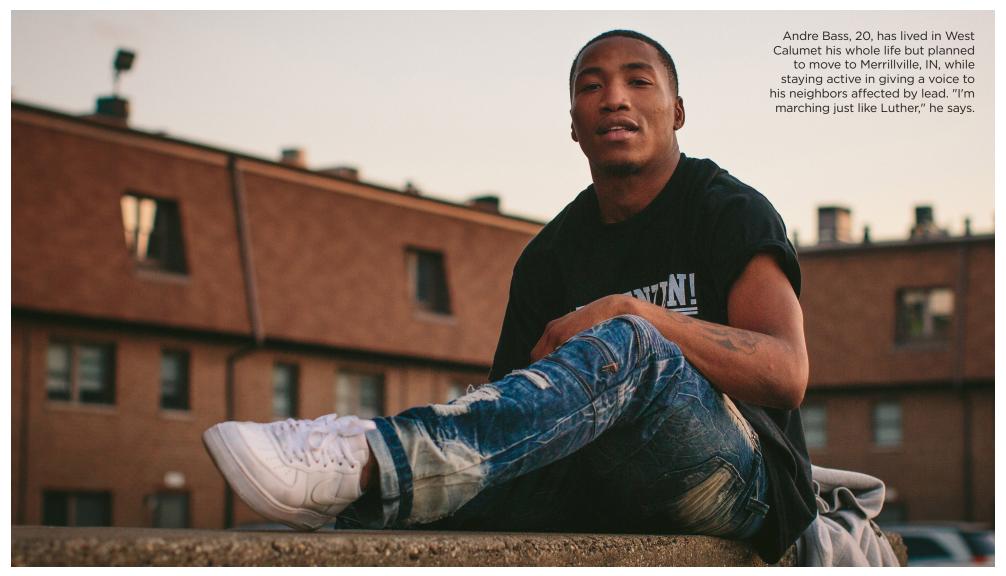
(BOTTOM) From left, Janae Peyton, 13, Ashanti France, 12, Irene Wooley, 13, and Tniyah Foxx, 12, have been friends since childhood. "All my memories are here. I've got to move away from my friends," Peyton says.



Sherry Hunter grew up in the West Calumet Housing Complex and now owns a home nearby. Now an activist in the Calumet Lives Matter movement, Hunter says she's most concerned for senior citizens who are struggling to find new homes.



Stephanie King embraces her youngest son, Josiah King, 3. Two and a half years ago, King left Chicago's South Side to keep her children safe from gun violence. "If I'd have known the dirt had lead, he wouldn't have been out there playing in it," King says.



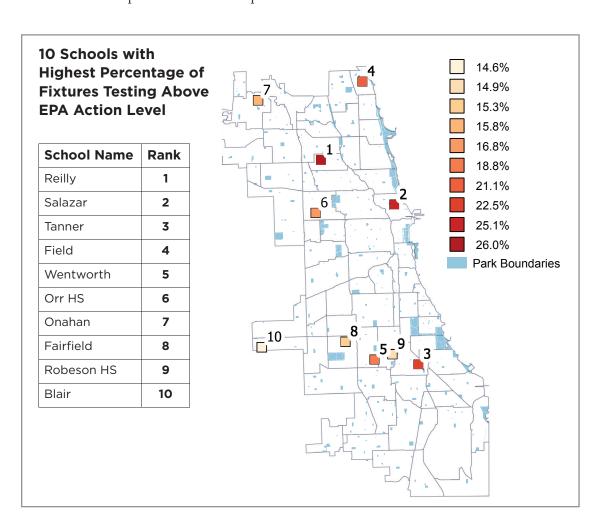
Across the City, Over the Years

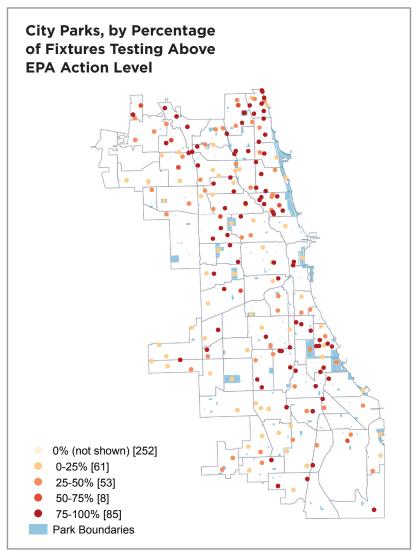
What we know about lead levels in Chicago

DATA VISUALIZATION BY ERIC SHERMAN & DATAMADE



Chicago Public Schools and the Park District tested a combined total of more than 14,000 fixtures in 2016 and found 172 schools and 208 parks with fixtures that tested above the fifteen parts per billion "action level" at which EPA requires authorities to inform the public and start corrosion control. All fixtures that tested above the EPA level have since been shut off or put under an "action plan" to remediate the fixture.

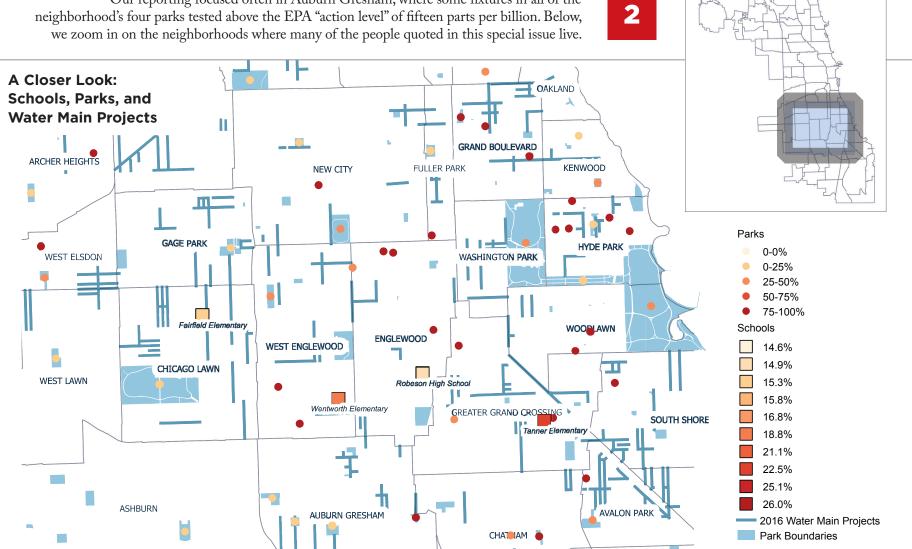




Community Areas With the Most Parks that Had Any Fixture Test Above EPA Action Level

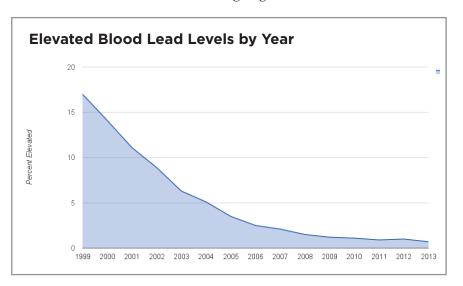
Community Area	Number of Parks with Elevated Levels
Rogers Park	11
Lincoln Park	11
Hyde Park	7
West Ridge	7
Irving Park	6
Portage Park	5
Logan Square	5
West Town	5
Lakeview	5

Our reporting focused often in Auburn Gresham, where some fixtures in all of the



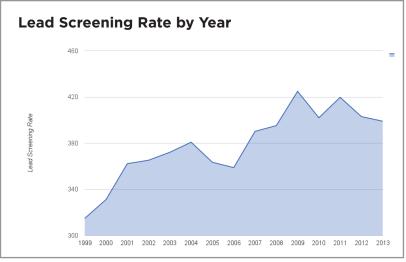
3

Lead has been a matter of interest for much longer than 2016. While the percentage of people 4 in Chicago tested for lead that exhibit elevated blood lead levels has been going down...



The city is currently replacing water mains in all parts of Chicago. Above, these projects are marked with blue lines. According to experts, disturbance of the pipes can lead to increases in lead exposure for residents in the surrounding area.







WILL CAMARGO

Nicole Hamp is a pediatrician who says Illinois's Early Intervention program can help families maximize a lead-affected child's development.

Keeping Kids On Track

Illinois considers giving lead-poisoned children access to its successful Early Intervention program

BY NISSA RHEE

7hen Saeri Geller's son was fifteen months old, she caught him eating paint chips in their home in Grand Crossing. A visit to the doctor confirmed her fears: Ian had dangerously high blood lead levels.

For the last five months, Geller and her son have been shuttling between doctors' appointments and friends' homes as Ian undergoes chelation drug therapy and their house is renovated to remove the lead threats. She hopes that they will be done with his therapy and back at home in time for the holidays. But she knows that even then, her family's struggles with lead will not be over.

"This isn't really something that you put behind you," says Geller. While their doctor found no problems with his development so far, Geller knows that the damage lead did to her son's brain might not be evident until

"Every little issue or problem that comes up, is it just because how he is or is it because of lead?" she says. "He's a pretty chill baby for the most part, but any tantrums that happen, or out-of-the-ordinary behaviors, is it because he's a toddler or is it because of the lead? How do we recognize what's leadbased and what's not? It's almost impossible."

While doctors have long understood the link between childhood lead poisoning and developmental delays, parents in Illinois, like Geller, have been locked in a waiting game. Until their child has substantial developmental difficulties, they are not eligible for the state's Early Intervention

program, which provides free or low-cost therapy to children ages zero to three with delays or disabilities. But by the time a child begins exhibiting these delays, which may take years, it's often too late to make a real difference.

Soon parents may be getting some extra help, however. The Illinois Department of Human Services is considering allowing all young children with elevated blood lead levels to be automatically eligible for Early Intervention. If adopted, Illinois would join twenty-one other states that currently provide such services to lead-affected

Underpinning the move are advances in modern brain science, which suggest that the human brain is most elastic in young children. Because of this, infants and toddlers are especially vulnerable to lead. Even low levels of lead in a child's body has been shown to damage their central nervous system, decrease academic achievement and IQ and impact their ability pay attention, learn language and read.

While lead abatement and chelation drug therapy can help reduce the amount of lead in a child's body, this neurological damage cannot be overcome by a trip to the doctor's office alone.

"There's no drug that I can give that will eliminate the effects of lead on the developing brain," explains pediatrician Dr. Nicole Hamp of the University of Chicago Comer Children's Hospital. "But the developing brain, particularly between birth

and five years old, is so plastic that while we can't reverse the effects of lead, we can compensate for the effects of lead. So early intervention is really key for these kids, they are really going to benefit from it."

Hamp says that services offered by the IDHS's Early Intervention program can help families maximize their child's development, with services ranging from speech therapy to occupational therapy to nutrition services. Once approved for the program, a child would receive an Individualized Family Service Plan that lavs out what sort of treatment the child needs and over what time period. Service providers, who are generally therapists or nurses, then come to the family's house regularly for sessions with the child and his or her caretaker.

While the IDHS does allow pediatricians to recommend children to the program if they believe there is "substantial risk of significant delays," few doctors currently steer lead-poisoned children into

compensate for what will be coming down the pipe," says Zimmerman, who sits on that advisory board.

The effort has garnered support both because we're catching them at an age when locally and in Springfield, where Governor Bruce Rauner's Cabinet on Children and Youth is "discussing a number of potential interventions to develop a comprehensive prevention and response strategy to reduce the impact of lead exposure on children," according to Illinois Department of Public Health spokesperson Melaney Arnold.

> In October, Julie Morita, head of the Chicago Department of Public Health, also voiced support for the Early Intervention push, but cautioned that the benefits and costs of such a move must be weighed.

> "If we had unlimited resources, I think we could just do it without looking at the evidence," says Morita. "But I think we have to look at the evidence to see if studies show if this is beneficial or worthwhile. If we find that it's effective and it works and it's also costly, I think we need to look at all those

Even low levels of lead in a child's body has been shown to damage their central nervous system, decrease academic achievement and IQ, and impact their ability pay attention, learn language, and read.

the Early Intervention program, says Amy Zimmerman of the Legal Council for Health Justice. That's a problem, she says, because nearly half of the developmentally delayed children who go through the Early Intervention program in Illinois don't need special education when they reach kindergarten, a benefit that saves taxpayers seven dollars for every dollar spent on Early lead-poisoned children into the Early Intervention.

This month, two working groups from a state advisory board are meeting to determine the blood lead level necessary to qualify a child for Early Intervention and the types of services that will be offered.

"Our hope with getting these kids who have been poisoned in there early is that they will be on target at age five when they enter school, because they were able to get the services and the tools they need to be able to

factors before we make a decision."

Less than half of the funds for Early Intervention in Illinois come from state general revenue. Medicaid, private insurance, and family fees cover the rest of the cost. The program currently serves over 20,000 infants and toddlers each year.

While automatically allowing Intervention program may increase the cost of the program, the extra money would be well spent on her patients, says Hamp.

"Already children on the South Side have to face so much adversity and throwing lead into the mix is just one more hoop that they have to jump through," she says. "I think with having a patient population that's so disproportionately affected by lead, this seems like something that we can really get out in front of and do something about." *



Dr. Howard Ehrman served as the director of primary care and assistant commissioner in the Chicago Department of Public Health from 1985 to 1991 and has taught public health and medicine at the University of Southern California, Cook County Hospital, and University of Illinois at Chicago. He is now retired and a full-time environmental justice organizer.

'm a native-born Chicagoan. I grew up on the South Side until I went to high school, and I have lived in the city of Chicago probably fifty-five years of my sixty-nine years of life. I love Chicago. I love the people.

I started working on lead as an intern in the summer of 1968 with Dr. Henrietta Sachs at the Chicago Department of Public Health. People organized to put pressure on Mayor Richard J. Daley and the health department to fix the lead problem, especially people in Englewood and Pilsen. These were civil rights groups including Al Raby and a lot of community organizations and churches.

Children were dying regularly of lead poisoning in the 1960s, mostly black and brown kids who were poor. I worked with the city's "lead mobile," going door to door and putting the van in different places like churches and schools so kids could get

Then in the late 1980s, a lot of white, middle- and upper-class parents, started buying older homes and renovating them by scraping or burning off paint while their kids were in the home. So there were a number of kids like that who got lead poisoning.

At that point President [George

The Fighter

A conversation with Howard Ehrman

AS TOLD TO NISSA RHEE

H.W.] Bush worked with the Congress to get more funding for lead poisoning, which was a good thing. So lead poisoning programs expanded and the blood lead level the government considered "normal" came down from forty to twenty-five to fifteen, to now, it's five micrograms per deciliter.

It's good that we've made real progress in terms of the number of kids who are lead poisoned. But the problem is that over the last fifteen years, the number of kids who have been poisoned hasn't gone down. Almost all the lead poisoned kids now are poor kids that are black or brown or Native American. In the last fifteen years the federal state and local governments have actually significantly cut back on lead poisoning programs. During the Obama administration, the National Lead Prevention Task Force was eliminated. Chicago has significantly cut the lead budget for home lead inspectors, lead testing of children, and more.

The city must expand its lead program and force landlords to clean up leadcontaminated properties. The city must begin a program in 2017 to replace all water lead service pipes.

And organizations new and old like Black Lives Matter, Black Youth Project, and the NAACP must once again organize to make this tragedy an issue that we will all work on together.

We've had a situation that was never that good go to very bad. And we have a cohort of kids with lead poisoning not making progress because we're not doing what we need to do. We lack funds, lack people, and most of all we lack the political will to do it. So until this isn't a problem anymore, I'll be working on it.



Text the word LEAD to 312-697-1791 to get school, park, and medical lead test results for your area

Standard messaging rates apply



This is a public engagement project from City Bureau, Chicago's civic journalism lab based in Woodlawn.

Find out more at citybureau.org