

HEALTHY CHICAGO

TRANSFORMING THE HEALTH OF OUR CITY

CHICAGO DEPARTMENT OF PUBLIC HEALTH

POLICY BRIEF

July 2013

HEALTHY HOMES: POLICY OPTIONS FOR PREVENTING LEAD POISONING

CHILDREN ARE STILL AT RISK FOR LEAD POISONING

Lead can affect nearly every system in the body, and has been linked to learning disabilities, behavioral problems, and, at very high levels, seizures, coma, and even death.¹ The most widespread source of exposure is lead-based paint through ingestion of paint chips or breathing in the dust from these surfaces.²

No safe threshold for lead exposure has been discovered and even low levels of lead exposure can impact children's health and education.

Lead poisoning is caused by a buildup of lead in the body over the course of months or even years. Lead poisoning may seem like a problem of the past because leaded gasoline and lead-based paint have been banned for more than 25 years. However, many children still are exposed to this toxin, especially in cities (like Chicago) that have an older housing stock. Moreover, children are at highest risk for lead poisoning because they're often putting things in their mouths and their bodies and brains are still developing.

Findings from many studies show that lead exposure has a negative impact on children. For example, one study found that children with high blood lead levels (BLLs) were significantly more likely to be classified as learning-disabled.³ Another study found a strong relationship between elevated BLLs and poor performance on academic tests throughout junior high school.⁴

No safe threshold for lead exposure has been discovered and even low levels of lead exposure can impact children's health and educational abilities.⁵ In a study of 48,000 Chicago school children, BLLs as low as 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$) were associated with lower scores on third grade reading and math tests. Researchers determined that BLL has a strong relationship to test scores, similar to factors such as maternal education, birth weight, and race/ethnicity. This study also showed that non-Hispanic black students were found to have an average BLL more than twice that of non-Hispanic white students, showing a significant disparity in BLLs.⁶

Active surveillance of vulnerable children is important because many children with lower BLLs do not exhibit any symptoms. When unrecognized, the child is at risk of further elevated BLLs, leading to more severe health problems.

NEW RECOMMENDATIONS: TAKE ACTION EVEN FOR LOW LEVELS OF CHILDHOOD EXPOSURE TO LEAD

For many years, the Centers for Disease Control and Prevention (CDC) defined a BLL of 10 $\mu\text{g}/\text{dL}$ as the level at



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which public health actions should be initiated. However, just last year the CDC Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP), a group of experts who advise the CDC on scientific knowledge, recommended lowering the BLL considered elevated to 5 µg/dL, based on the highest 2.5% of children ages 1-5 tested for lead in their blood.^{7,8,9} Based on this new criteria, approximately half a million U.S. children ages 1-5 are estimated to have elevated BLLs.

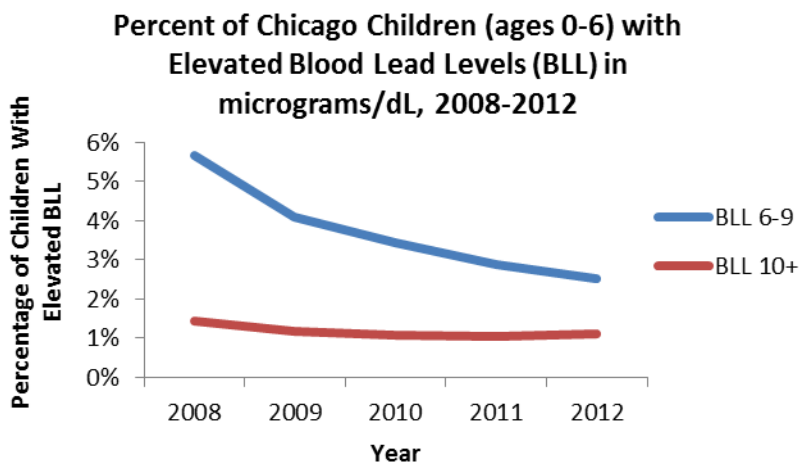
The CDC's new recommendation for treating children at lower BLLs has more than tripled the number of Chicago children who should receive case management and other interventions. It is estimated that 6,100 of Chicago students entering kindergarten in the 2012-2013 school year had a BLL of ≥ 5 µg/dL, or 14% of this birth cohort.¹⁰ By identifying children at lower levels, this new recommendation empowers parents, doctors, and public health officials to take action earlier reduce the harmful consequences of childhood lead exposure.

CITY OF CHICAGO DATA

The number of children with high (≥ 10 µg/dL) BLLs has decreased, but improvements have plateaued

In the past 15 years, the percentage of Chicago children aged 0-6 years who were tested and had elevated BLLs of ≥ 10 µg/dL dropped significantly from 20% to just above 1%. This accomplishment can be attributed in part to increased public awareness about lead-based paint and lead poisoning, public health inspections, and abatement of identified housing. In the past five years, however, the percentage of children with BLLs of ≥ 10 µg/dL has remained the same, representing approximately 1,000 children in serious need.¹¹

Figure 1: Estimates of blood lead levels in Chicago children



Many more children have lower BLLs (6 - 9 µg/dL), however the number is decreasing each year.

In 2012, 2.5% of all children tested had BLLs of 6-9 µg/dL compared to 5.7% in 2008, a reduction of 3.2 percentage points or 56%. Although the number of children with BLLs within the range of 6-9 µg/dL has substantially decreased, CDC's new recommendation has more than doubled the number of children now in need of education and prevention services.

HEALTHY HOMES: A HEALTHY CHICAGO PRIORITY

The Healthy Chicago Agenda was developed by the Chicago Department of Public Health (CDPH) to address the City of Chicago's top-twelve public health priorities. "Healthy Homes" is one of the priority areas in Healthy Chicago, focusing on ameliorating home-based hazards that can cause asthma, allergies, cancer, injuries and poisoning – including lead poisoning.¹²



Childhood lead poisoning prevention is of particular concern to Chicago because 80% of its housing was built prior to the ban on lead-based paint.¹³ Through its Healthy Homes program, CDPH educates parents, healthcare providers and the community about lead and the importance of getting young children tested for lead poisoning. CDPH personnel track lead poisoning in Chicago and provide case management services for many children who have been poisoned. Inspectors conduct home visits to identify hazards and educate families and property owners on mitigation needed to eliminate the sources of lead. Grant funding is available for lead abatement for home owners who qualify financially. CDPH also has the legal enforcement authority to require property owners to fix identified hazards.

CDPH also utilizes policy to prevent lead poisoning. Earlier this year, the Chicago City Council enacted an amendment requiring contractors seeking work permits for child-targeted buildings to be certified in Lead Renovation, Repair, and Paint (RRP), as required by the U.S. Environmental Protection Agency (EPA). This amendment will ensure that contractors follow lead-safe practices during renovations, which will reduce children's exposure to lead paint and dust.

FUNDING CHALLENGES

Though childhood lead poisoning continues to impact the lives of hundreds of thousands of children throughout the country, budget cuts have created obstacles for the lead poisoning prevention and the CDPH Healthy Homes initiative. For over a decade, CDC provided 35 states and five urban areas with the highest risk for lead poisoning, including Chicago, with grants to conduct lead poisoning prevention efforts. CDPH used to receive \$1.1 million annually to fund these prevention, surveillance, management, and enforcement activities. However, the recent budget crisis reduced CDC's overall funding and eliminated the lead poisoning prevention grant for big cities.

In addition, the 2012 Omnibus Spending Bill cut \$27 million of the \$29 million in lead poisoning prevention allotted to health departments across the nation. The remaining \$2 million funds the CDC program for national level activities and a resource center for states and localities.

Further cuts to the CDPH's lead poisoning prevention program occurred due to the State of Illinois' fiscal problems. Over the past few years, the funding that the Illinois Department of Public Health (IDPH) provides to CDPH has declined sharply, from \$1.1 million in fiscal year 2009 to \$430,812 in fiscal year 2014. In just five years, IDPH cut Chicago's lead prevention funding by 62%, forcing CDPH to reduce their Lead Poisoning Prevention Program staff by 36%.¹⁴

POSSIBLE POLICY DIRECTIONS

Health experts and advocacy organizations have identified a number of policy options to reduce on-going childhood exposure to lead and help address its negative impacts on children. Several such policy options are outlined below.

- Advocate that the Illinois Department of Human Services include lead poisoning as an eligibility listing in Appendix E on the list of "Medical Conditions Resulting in High Probability of Developmental Delay" for Early Intervention (EI) services and supports. Illinois' EI program's mission is to assure that families who have infants and toddlers, birth to three, with diagnosed disabilities, developmental delays or substantial risk of significant delays receive resources and supports that assist them in maximizing their child's development.¹⁵



- Advocate for active enforcement of the U.S. EPA’s Lead Renovation, Repair, and Paint (RRP) Rule by the proper authority. The EPA oversees Illinois’ RRP program, however there are opportunities for Illinois to obtain authority to administer and enforce RRP. Currently, 11 state governments are authorized to oversee RRP activities in their states.¹⁶
- Advocate for continued federal funding of U.S. Department of Housing and Urban Development’s (HUD) Lead-Based Paint Hazard Control and the Lead Hazard Reduction grant. In 2011, HUD awarded \$93 million in grants to 39 local projects around the country to conduct activities to protect families and their children from lead-based paint and other home-based hazards. CDPH receives \$3 million for these activities, the highest amount allotted for any grantee.¹⁷
- Advocate that the U.S. Internal Revenue Service add purchase of lead paint testing kits to the items allowed as qualified medical expenses by a Flexible Spending Arrangement (FSA) or Health Savings Account (HSA). Through an FSA, employees are able to set aside a tax-exempt portion of their salary for medical costs. An HSA is a tax-exempt trust or custodial account that reimburses allowed medical expenses.¹⁸ Adding these testing kits as allowable expenses through an FSA or HSA would encourage parents to purchase the kits to help determine if there is lead in their home. Parents would then be able to intervene earlier and get their children medical services if needed.

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