

LEAD-FREE KIDS: PREVENTING LEAD POISONING IN PHILADELPHIA



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Overview

It has long been recognized that exposure to lead in childhood can cause lifelong learning and behavior problems. The number of children exposed to lead has fallen dramatically over the years, and federal funding to respond to the problem has fallen sharply in parallel. However, scientific studies have repeatedly found subtle adverse effects at lower blood lead levels that were once considered safe, and federal guidelines have repeatedly lowered the threshold for action. This combination of reduced funding and newly-recognized risks at lower levels creates a need for a new approach to preventing childhood lead poisoning in Philadelphia. This plan summarizes how the City of Philadelphia proposes to expand its current activities and add new tactics to address the risk to children from lead from paint, with greater emphasis on primary prevention and enforcement of regulations regarding housing.

Background

Lead Poisoning

Lead poisoning in childhood is a cause of learning and behavior problems. The recognition of these effects and the consequent approach to prevention of lead poisoning has changed markedly over the years. In 1960, these developmental problems were recognized at blood levels above 60 micrograms per deciliter ($\mu\text{g}/\text{dL}$), but in the decades since then studies have shown that subtle damage is seen at much lower levels that were once thought to be safe. Because of this, levels for action on lead exposure have fallen repeatedly over the years. In 1991, the Centers for Disease Control and Prevention (CDC) lowered its threshold for action for children's blood lead levels from 25 $\mu\text{g}/\text{dL}$ to 10 $\mu\text{g}/\text{dL}$, calling the new threshold a "level of concern." Additional studies since then have identified possible risks at even lower blood lead levels. Based on these findings, the CDC in 2012 changed its approach and terminology again, calling a blood lead level of 5 $\mu\text{g}/\text{dL}$ a "reference" level, above which a child's risk should be evaluated and monitored.

The primary source of lead poisoning in the United States among children today is lead in paint. Lead was added to paint in the U.S. from the early part of the 20th century to 1978, so any housing unit that was built before 1978 is likely to have lead-containing paint on the walls. Intact paint containing lead poses very little risk, but when that paint chips or peels, it creates flakes and dust that can be ingested by children, especially toddlers.

Scope of the Problem in Philadelphia

According to the U.S. Census, there are 580,000 occupied housing units in Philadelphia, of which 306,000 (53%) are owner-occupied and 273,000 (47%) are rentals.ⁱ Philadelphia estimates that about 551,000 (95%) of these housing units have the potential of lead-based paint because they were built before 1978.ⁱⁱ Approximately 56,000 of these units house children aged 6 or under, of which a little more than half are owner-occupied and a little less than half are rentalsⁱⁱⁱ.

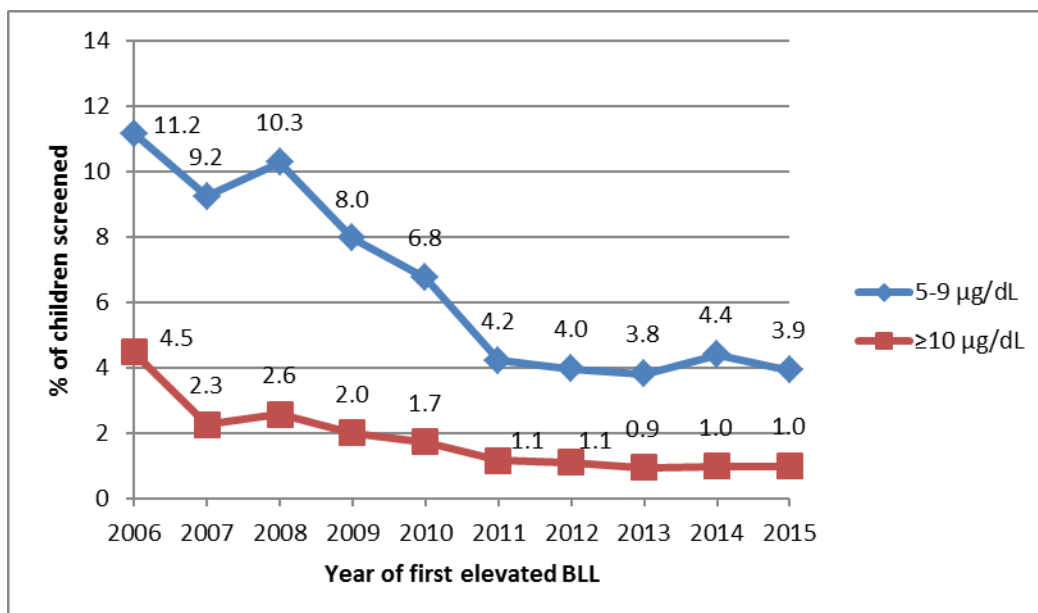
Screening of children for elevated blood lead levels

It is recommended that children be tested for lead at one year and two years of age. In Philadelphia in 2015, among children born in 2012, 76% of children were tested by age two and 88% were tested by age 3.^{iv}

Trends in elevated lead levels among children in Philadelphia

The number of children newly identified as having blood lead levels above 10 µg/dL on venous blood samples¹ has fallen from 1,413 (4.5% of those tested) in 2006 to 369 (1.0% of those tested) in 2015. The number of children with blood lead levels between 5 and 9 µg/dL has fallen from 3,527 (11.2%) to 1,477 (3.9%) during the same time period.

Figure 1. Incidence of newly-identified young children with blood lead levels on venous samples of greater than 5 µg/dL



¹ Lead levels can be measured by blood sample taken from a vein (venous sample) or from a fingerstick (capillary sample). Capillary samples can yield false positive results from small amounts of lead on the skin (e.g. from lead-containing dust), so venous samples are considered more valid.

Philadelphia Laws

The Philadelphia Health Code section on “Residential and Occupancy Hygiene” (6-403) prohibits lead-based paint in housing in which the health department determines that it “creates a health hazard to children under the age of 6.” If the presence of lead is identified by testing, the health department “shall issue an order to the owner, his agent, or occupant to eliminate the hazard.” If that person does not eliminate the hazard, the department may contract with others to eliminate the hazard and charge the costs to the owner. This is the law that is used by the Philadelphia Department of Public Health’s (PDPH) Lead and Healthy Homes Program (LHHP) to enter homes, test for lead, and order owners to remediate hazards.

In addition, in 2012, Philadelphia’s Lead Paint Disclosure law (6-800) went into effect. This law requires that landlords renting residences built before March 1978 in which children aged six or under are residing: 1) have the residence inspected and certified as “Lead Free” or “Lead Safe,” 2) provide this certificate to tenants for their signature, and 3) provide a copy of this certificate signed by the tenant to PDPH. In addition, owners selling residences are required to notify buyers of potential lead risks. PDPH has received approximately 1,500 Lead Free or Lead Safe certificates from landlords, of an estimated 26,000 properties for which these certificates are required. The Lead Paint Disclosure Law includes provisions for fines or penalties up to \$2,000 per day for landlords who fail to comply, but this law has not yet been proactively enforced.

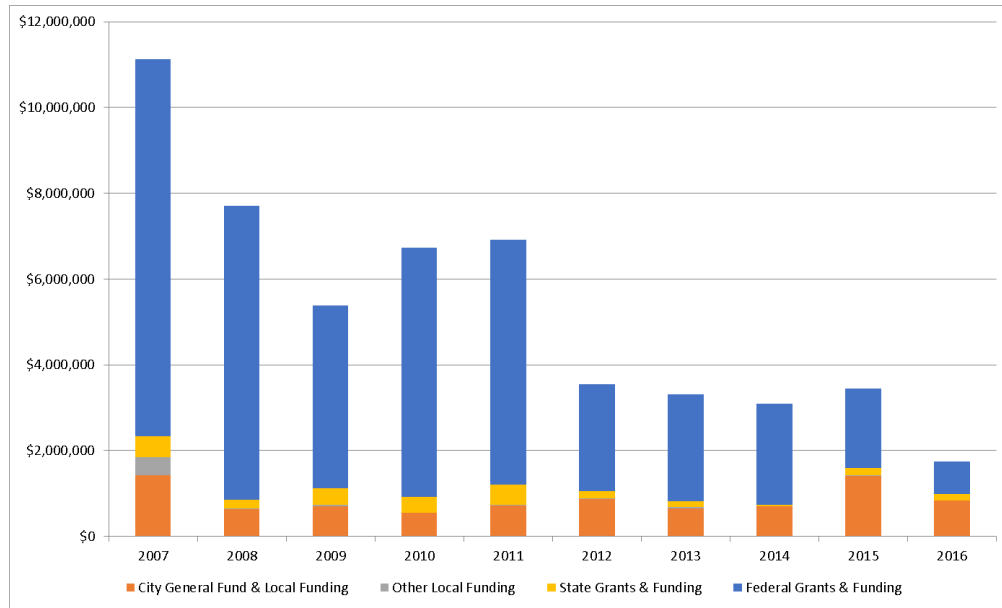
Lead Poisoning Prevention in Philadelphia

For many years, LHHP has addressed lead poisoning in children by identifying children with elevated blood lead levels and working with families, homeowners, and landlords to reduce lead hazards in homes. Currently, the primary focus of the program is children with blood lead levels of 10 µg/dL and above. LHHP attempts to contact the families of these children, provides education, conducts inspections and assesses the risk of lead paint, issues orders to property owners to remediate lead paint hazards, and works with the City of Philadelphia Law Department to bring enforcement actions against property owners who fail to remediate their properties. In addition, when possible, LHHP provides education for families of children with blood lead levels between 5 and 9 µg/dL. This education-driven approach for children with blood lead levels under 10 is consistent with the approach of other jurisdictions.

Funding for Lead Poisoning Prevention Programs

Historically, much of the funding for lead poisoning prevention has come from federal grants, particularly from the Department of Housing and Urban Development (HUD) and from the Centers for Disease Control and Prevention (CDC). In FY 2007, overall funding for LHHP was approximately \$11 million, much of which was used for remediation of properties. With federal budget cuts, overall funding for lead poisoning prevention in FY 2016 had fallen to less than \$2 million.

Figure 2. Funding for lead poisoning prevention at the Philadelphia Department of Public Health, Fiscal Years 2007 - 2016



Plan

In order to address the effects of lead poisoning, and respond to changing guidance on action levels, the Philadelphia Department of Public Health (PDPH), the Department of Licenses and Inspections (L&I), and the Law Department will enhance their efforts for both primary and secondary prevention.

Primary Prevention

The City will strengthen its work to prevent all children from being exposed to lead from paint, with greater efforts on education and enforcement. PDPH will:

- Incorporate education about lead risks and identification of potential lead risks from peeling paint into protocols for various infant home visiting programs.
- Increase door-to-door outreach to an additional 400 families per year in neighborhoods with the highest prevalence of lead poisoning cases in the city, offering inspections and testing for lead. PDPH has already reached more than 100 families in the Kensington area as part of its Healthy Neighborhoods project.
- Develop and disseminate advertising messages warning about the risks of lead and the requirements of the Lead Paint Disclosure Law. Messages will build on the successful summer 2016 marketing campaign, which used transit posters and digital ads to

educate landlords and tenants about their responsibilities and rights to maintain a lead safe home. The advertisements will refer people to the PDPH website for more information.

- Provide additional training for L&I inspectors to look for property maintenance violations that may be indicative of potential lead paint hazards, such as chipping and peeling paint, when responding to housing complaints in homes with pregnant women and/or children aged six or under. If L&I inspectors find such violations, they will refer that home to the Lead & Healthy Homes Program (LHHP) for follow-up. L&I will track the number and frequency of these violations through more detailed data collection.
- Partner with L&I on initiatives to increase the number of landlords who submit the required Lead Free or Lead Safe certificates. The agencies will collaborate to:
 - Update L&I materials, including the “Partners for Good Housing” handbook, to include more information about the Lead Paint Disclosure Law. L&I will also use these materials to communicate with landlord and tenant associations about the law’s requirements.
 - Modify the rental license application and online renewal form to require that landlords attest to whether the rental unit was built before 1978 and whether a child aged six or under is or will be living there. If so, the application and online renewal form will require that landlords certify that they have submitted the required Lead Safe or Lead Free certificate.
 - Improve data collection and data sharing between PDPH and L&I, including the creation of a process allowing PDPH to determine if landlords who certify on their rental license applications and renewals that they have submitted Lead Safe or Lead Free certificates have done so.
 - Over the longer term, automate data-sharing across PDPH and L&I by requiring that all rental license applications and renewals be completed online or in-person and implementing technological changes that allow for real-time checks of Lead Safe and Lead Free certificates. By creating this real-time check, PDPH will allow L&I to automatically deny license renewals for landlords not in compliance with the Lead Paint Disclosure Law.
- Take enforcement actions against landlords who do not submit Lead Free or Lead Safe certificates as required by the Lead Paint Disclosure Law.
 - Send notices to landlords who rent older properties in which young children are thought to be living, reminding them of their obligations under the Lead Paint Disclosure Law.
 - Issue Code Violation Notices (CVNs) to landlords required to submit Lead Free or Lead Safe certificates who do not do so after repeated notices.

- Pursue court-ordered fines for landlords who do not submit Lead Free or Lead Safe certificates despite receiving CVNs.
- Conduct additional enforcement, including issuing Notices of Violation and pursuing court-ordered remediation, fines, liens and other remedies, for non-compliant landlords with multiple properties, higher-risk properties, or repeated noncompliance.
- Make landlords with outstanding Notices of Violation ineligible for rental license renewal.

Secondary Prevention

In addition to working to prevent lead poisoning, the City will respond quickly to cases of elevated blood lead levels to prevent further exposure to affected children. City agencies will enhance enforcement of the Residential and Occupancy Hygiene law and use new strategies to reduce the impact of lead exposure. The Department of Public Health will:

- Identify pediatric health care providers with low rates of blood lead screening in children under their care and work with them to increase screening.
- Identify rental properties containing lead in which children with elevated blood lead levels ($\geq 10 \mu\text{g}/\text{dL}$) are currently living and strengthen efforts to require landlords to remediate these properties, or remediate properties at landlord's expense if landlords do not fulfill their obligations.
 - Identify children under the age of 6 with an elevated blood lead level using data from the state's surveillance system. Promptly contact families of children with elevated blood lead levels, and inspect their homes for lead hazards.
 - Improve acceptance of services by affected families by offering families incentives to allow visits for education and inspections.
 - Issue orders to landlords to remediate lead from their rental properties.
 - For properties that landlords do not remediate within 30 days of the order, PDPH will either remediate immediately or seek court-ordered remediation. If PDPH remediates the property, the department will pursue court-ordered reimbursement for remediation costs plus fines, and place municipal liens if landlords do not repay PDPH voluntarily.
 - In cooperation with Lead Court, PDPH and Law will streamline the adjudication process by reducing the number of times individual cases get continued to additional appearances and requiring more immediate compliance by uncooperative landlords, and increase recovery of remediation costs and fines.
 - Refer all unreimbursed costs to Revenue and Law for aggressive collection actions.

- Request Health Code changes to strengthen enforcement of existing requirements for landlords to remediate properties and hold landlords accountable to those requirements.
- Seek to establish a fund for the City to cover remediation costs that are ultimately unreimbursed by landlords.
- Identify privately-owned homes in which a child with elevated blood lead level (≥ 10 $\mu\text{g}/\text{dL}$) lives and ensure that they are remediated.
 - As with rental properties, promptly contact families of children with elevated blood lead levels, conduct education and inspection activities, and refer families for additional supportive services as appropriate.
 - As with rental properties, order remediation for homes with lead-based paint hazards.
 - Work to increase financial assistance, using grants and/or low-interest loans, to help low-income homeowners defray costs of remediation.

Evaluation and Surveillance

This plan will be evaluated on an ongoing basis, and the health department will conduct surveillance for lead poisoning and markers for lead exposure in children.

- Primary prevention activities will be evaluated by tracking measures of educational activities (for example, the number of materials distributed, number of home visits in which lead risks are discussed, number of visits to the website) and the number of Lead Free and Lead Safe certificates received from landlords.
- Secondary prevention activities will be evaluated by tracking measures of home-based interventions, such as the number of families educated, number of homes remediated overall, number of homes remediated by landlords, and the percent of enforcement actions that lead to remediation by landlords or recoupment of remediation costs from landlords.
- Overall lead exposures in children will be monitored through surveillance of blood lead screening results. Simultaneous with this plan, PDPH also released its first annual lead poisoning surveillance report. This report includes information on lead screening and lead exposure trends city-wide as well as at a zip code level.

ⁱ 2010-2014 American Community Survey (ACS) 5 year estimates

ⁱⁱ Estimated based on Philadelphia Office of Property Assessment (OPA) and Philadelphia Department of Licenses and Inspections (L&I) data

ⁱⁱⁱ Estimated based on ACS and OPA data

^{iv} Philadelphia Department of Public Health, 2015 Childhood Lead Poisoning Prevention Surveillance Report.