



AFFORDABLE HOUSING AND HEALTH

Housing Law Is a Vehicle for Keeping Children Healthy—The HUD Approach

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As a former neurosurgeon, I am all too familiar with the effects of lead exposure on the developing brain. Childhood lead poisoning is a clear example of how substandard housing can adversely affect the health of disadvantaged populations. Ever since national level data have been available, children in poor households have been found to be at the highest risk of lead exposure, with black children being at greatest risk among this group. The reduction in childhood lead exposure over the past decades also represents an example of a public health success story resulting from the efforts of sustained and coordinated actions by federal, state, and local governments and non-governmental organizations.

Over the past several years, the importance of the housing stock to the nation's economy has become increasingly evident. Housing, as a financial and national asset, has never been more important. At the U.S. Department of Housing and Urban Development (HUD), we play a unique role at the intersection of health and housing. Homes and health are inextricably linked: they reflect two of the most basic needs of a society and serve as an indicator of the strength of the nation. Substandard housing affects communities through wealth depletion, an increase in abandoned properties, and housing instability. While unhealthy and unsafe housing continues to affect the health of millions of people from all income levels, geographic areas, and walks of life, susceptible and vulnerable populations (such as children, the poor, minorities, and people with chronic medical conditions) are disproportionately impacted by inadequate housing. Furthermore, low-income persons are more likely to lack resources for preventive measures in the home, and deferred maintenance can lead to the development and persistence of residential health hazards. Improving housing quality can have a dramatic effect on the health of residents, in turn improving their economic and educational status.

The lead hazard control programs at HUD are unique in the federal government. Unlike many housing rehabilitation programs that focus on major renovations with health and safety as a secondary concern, the lead hazard control programs are intentionally focused on making homes safer for children and families to live in using established assessment and hazard control methods that result in proven benefits¹ and cost savings.² These programs play an important part in reducing the nation's health care costs and have a demonstrated history of success. They meet critical needs in communities where no other resources exist to address substandard housing that threatens the health of the most vulnerable residents.

Through the concerted efforts of laws, regulations, policies, and programs to remove lead from house paint, gasoline, food containers, and consumer products, to support blood-lead surveillance in children, and to target interventions to create lead-safe housing, the geometric mean blood lead level in children ages 1–5 fell from 15 g/dL (micrograms per deciliter) in 1976–1980 to 0.84 g/dL in 2013–2014.³

Lead-based paint is the major source of children's lead exposure. The ingestion of lead-contaminated house dust and residential soil contaminated by the spread of deteriorated paint, and the grinding and weathering of the paint into dust inside the home and outside on the soil, are the major pathways for exposure. House dust, which can be contaminated by small particles of lead-based paint or track-in of lead-contaminated soil, is a major pathway of lead exposure for children who live in older, poorly

1. Clark S, Galke W, Succop P, Grote J, McLaine P, Wilson J, Dixon S, Menrath W, Roda S, Chen M, Bornschein R, Jacobs D. Effects of HUD-supported lead hazard control interventions in housing on children's blood lead. *Environmental Research* 111(2): 301–11, 2011. <https://doi.org/10.1016/j.envres.2010.11.003>; Wilson J, Pivetz T, Ashley P, Jacobs D, Strauss W, Menkedick J, Dixon S, Tsai HS, Brown V, Friedman W, Galke W, Clark S. Evaluation of HUD-Funded Lead Hazard Control Treatments at Six Years Post-Intervention. *Environmental Research* 102(2):237–48, 2006. <https://doi.org/10.1016/j.envres.2006.04.007>.

2. Gould E. Childhood Lead Poisoning: Conservative Estimates of the Social and Economic Benefits of Lead Hazard Control. *Environmental Health Perspectives* 117(7):1162–67, 2009. <https://doi.org/10.1289/ehp.0800408>; Pew Charitable Trusts. 10 Policies to Prevent and Respond to Childhood Lead Exposure. 2017. www.pewtrusts.org/en/research-and-analysis/reports/2017/08/10-policies-to-prevent-and-respond-to-childhood-lead-exposure.

3. Wheeler W, Brown MJ. Blood-lead levels in children aged 1–5 years—United States, 1999–2010. *Centers for Disease Control and Prevention. Mortality and Morbidity Weekly Report* 62(13), 245–48. 2013. www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm; Tsoi M-F, Cheung C-L, Cheung TT, Cheung BMY. Continual Decrease in Blood Lead Level in Americans: United States National Health Nutrition and Examination Survey 1999–2014. *American Journal of Medicine* 129(11):1213–18. November 2016. <https://doi.org/10.1016/j.amjmed.2016.05.042>.

maintained housing.⁴ Due to past use of lead in paint, housing age is a key predictor of the risk of lead exposure. HUD's American Healthy Homes Survey (AHHS) found that only 2.7% of housing built from 1978 to 1998 contained one or more significant lead paint hazards. In contrast, 11.4% of housing built from 1960 to 1977, 39% of housing built from 1940 to 1959, and 67% of housing units built before 1940 contained one or more significant lead paint hazards.⁵

Examining the nation's housing stock, the AHHS found that 37 million homes have lead-based paint and 23 million U.S. homes have significant lead-based paint hazards. This survey found that the majority of homes built before 1940 with at least one child under age 6 living in poverty have significant lead-based paint hazards; the prevalence of lead paint hazards in these homes nationally was 57% (260,000). For these families living in homes built between 1940 and 1959, the prevalence of lead paint hazards was 54% (288,000), and for homes built between 1960 and 1977,⁶ the prevalence of lead paint hazards was 18% (150,000). Therefore, pre-1960 homes, particularly low-income homes with at least one child under age 6 present, provide an appropriate primary target for lead hazard reduction efforts.

The cost benefits of removing lead paint hazards in older housing is evidenced by a report from the Pew Charitable Trusts in 2017, which concluded that eradicating lead paint hazards from older homes of children from low-income families would provide \$3.5 billion in future benefits, or approximately \$1.39 per dollar invested, and protect more than 311,000 children.⁷ About \$2.8 billion of those benefits would accrue to roughly 244,000 of the 4 million children born in 2018. The other \$670 million in benefits would accrue from protecting approximately 67,000 additional children who are expected to be in those homes over the next ten years. The total benefits include \$630 million in federal and \$320 million in state and local health and education savings and increased revenue.

4. American Academy of Pediatrics Council on Environmental Health, *Prevention of Childhood Lead Toxicity*. *Pediatrics* 138 (1), July 1, 2016. <https://doi.org/10.1542/peds.2016-1493>.

5. Dewalt FG, Cox DC, O'Haver R, Salatino B, Holmes D, Ashley PJ, Pinzer EA, Friedman W, Marker D, Viet SM, Fraser A. Prevalence of Lead Hazards and Soil Arsenic in U.S. Housing. *Journal of Environmental Health* 78(5):22-29. December 2015. www.neha.org/node/6429; HUD Office of Lead Hazard Control and Healthy Homes. *American Healthy Homes Survey—Lead and Arsenic Findings*. April 2011. www.hud.gov/sites/documents/AHHS_Report.pdf.

6. The latter year is when the Consumer Product Safety Commission banned lead-containing paint from being used in consumer products, including house paint (16 CFR 1303, 42 Fed. Reg. 44199, Sept. 1, 1977; amended since); the rule went into effect in early 1978.

7. Pew Charitable Trusts. *Op cit*.

The primary federal law orienting the response to addressing lead paint hazards in housing is the Residential Lead-Based Paint Hazard Reduction Act of 1992, which is often referred to as Title X because it was enacted as Title X of the Housing and Community Development Act of 1992 (Pub. L. 102–550). This statute represented a sweeping new approach to the lead-based paint problem mandating a comprehensive response that would correct lead paint hazards in most⁸ older, i.e., pre-1978 housing nationwide, including:

- Establishing the HUD lead hazard control grant program, which focuses on lead hazard control in older privately owned, low-income housing;
- Training and certifying workers and firms doing housing rehabilitation, remodeling, renovation, repainting, and maintenance in most older housing (40 CFR Pt. 745, subpts. E and Q);
- Certifying of lead paint inspectors, risk assessors, and abatement contractors working on most older housing (40 CFR Pt. 745, subpts. L and Q);
- Establishing the federal Lead Disclosure Rule, under which HUD and the Environmental Protection Agency require the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most older housing (24 CFR Pt. 35, subpt. A, and 40 CFR pt. 745, subpt. F);
- Establishing requirements that owners or managers of most older housing that is financially assisted by the federal government or sold by the government evaluate and control lead paint hazards (24 CFR, Pt. 35, subpts. B through R);
- Defining and establishing standards for lead in paint, dust, and bare soil at most older housing (24 CFR Pt. 35, subpts. A and B; 40 CFR Pt. 745, subpts. E, F, and L); and
- Establishing Occupational Safety and Health Administration construction worker protection regulations (29 CFR 1926.62).

Implementation of Title X has enabled HUD to develop, demonstrate, and promote measures to correct lead-based paint-related health and safety hazards in the home environment that affect children, particularly of low-income families. Leveraging HUD's authority to enforce its Lead Paint regulations promulgated under Title X has been shown to be an effective primary prevention tool to further efforts to protect children from

8. Exempt from Title X and thus from the housing-related regulations issued under its authority is pre-1978 "housing for the elderly or persons with disabilities or any 0-bedroom dwelling (unless any child who is less than 6 years of age resides or is expected to reside in such housing)." (42 U.S.C. § 4851b(27)).

exposure to dangerous lead paint. The outcome of these activities is to ensure that America's children grow up in affordable, healthy, and safe homes that enable them to reach their full potential. For example, in our enforcement of the Lead Disclosure Rule, our focus has been to protect current and future residents, specifically children, by settling with property owners or managers and requiring testing for and abating any lead hazards found, while requiring them to pay a reduced penalty in return for their lead safety work, which is not mandated by the law or statute. This 20-year approach has resulted in creating hundreds of thousands of lead-safe and lead-based paint-free units, protecting nearly three-quarters of a million children, while benefiting the community and the landlords through higher market value of properties and decreased liability.

In addition, implementation of Title X at the federal level has served as a catalyst for local communities to develop policies that prevent children from being exposed to lead. Local communities have implemented additional innovative policies to expand efforts to reduce lead poisoning. Although many of these policies have focused on providing care for children with an elevated blood lead level, several have adopted policies that promote housing-based primary prevention. For example, New York City (Local Law 1 (2004)), Rochester, New York (Lead-Based Paint Poisoning Prevention (2005)),⁹ Massachusetts (Lead Poisoning Prevention Act (1971)), and Maryland (Reduction of Lead Risk in Housing Act (1994, 2012)) have adopted additional policies that proactively address lead in rental homes in their communities rather than waiting to act until a child had already been poisoned.

Targeting lead hazard control to older housing and at-risk populations is critical to sustaining and expanding positive outcomes and long-term benefits and for continued progress in reducing exposure to lead paint hazards.

As Secretary of HUD, I am committed to:

- Strengthening protections for children by implementing a faster response when a young child is exposed to lead-based paint hazards in an older HUD-assisted home, including lowering the Department's action threshold for lead in a child's blood;
- Targeting lead hazard reduction to the highest risk homes and communities to best use the available resources;
- Holding HUD-assisted older housing providers accountable for adhering to lead paint safety rules—federal, state, and local—as required by HUD in the Lead Safe Housing Rule as a condition of their accepting assistance (24 CFR §§ 35.145 and 35.150);

9. Korfmacher KS, Ayoob M, Morley R. Rochester's Lead Law: Evaluation of a Local Environmental Health Policy Innovation. *Environmental Health Perspectives*. 120(2):309–15. February 2012. <https://doi.org/10.1289/ehp.1103606>.

- Working directly with local governments to develop lead paint hazard reduction strategies;
- Establishing partnerships with community organizations, local health agencies, faith-based organizations, and private philanthropies to raise awareness about the dangers of exposure to lead-based paint, including by conducting local “Build a Healthy Neighborhood” events around the country and by sharing data to identify pre-1978 housing units with high potential for lead based paint hazards;
- Building and expanding local workforce development for lead hazard control work; and
- Expanding research into improving the efficacy and cost effectiveness of lead-based paint hazard identification and control methods.

HUD is uniquely positioned to continue to promote national efforts to ensure that families have decent, safe, and affordable housing. We have also learned from our experience that targeting building deficiencies that contribute to a multitude of health and safety hazards is more cost-effective than implementing interventions on a hazard-by-hazard basis. This whole-house, multi-risk-factor “healthy homes” approach (authorized by 12 U.S.C. §§ 1701z-1 and 1701z-2) is both cost effective and supported by studies on the return on investment for intervention programs. Housing interventions can be selected and implemented strategically to address multiple health and safety hazards.¹⁰ For example, sealing cracks around the foundation of a home may help to prevent moisture intrusion and the movement of pests into the home, thereby potentially reducing the risks for adverse health outcomes, such as asthma stemming from multiple exposure sources, lung cancer associated with radon intrusion, and childhood lead poisoning from moisture-induced deterioration of lead paint on walls. Reported findings demonstrate that intervention programs on lead poisoning prevention, reducing asthma triggers in the home, and the installation of smoke alarms, for example, produce a strong return for every dollar invested.¹¹

10. Jacobs DE, Brown MJ, Baeder A, Sucusky MS, Margolis S, Hershovitz J, Kolb L, Morley RL. A systematic review of housing interventions and health: introduction, methods, and summary findings. *Journal of Public Health Management and Practice* 16(5 Suppl):S5–10. 2010. <https://doi.org/10.1097/PHH.0b013e3181e31d09>.

11. Gould E. *op. cit.*; Nurmagambetov TA, Barnett SBL, Verughese J, Chattopadhyav SK, Hopkins DP, Crocker DD, Dumitru GG, Kinyota S. Economic Value of Home-Based, Multi-Trigger, Multicomponent Interventions with an Environmental Focus for Reducing Asthma Morbidity: A Community Guide Systematic Review. *American Journal of Preventive Medicine* 41(2S1):S33–S47. 2011. <https://doi.org/10.1016/j.amepre.2011.05.011>; Children’s Safety Network/Pacific Institute for Research and Evaluation. *Injury Prevention: What Works? A Summary of Cost-Outcome Analysis*

As Secretary, being smart about promoting efficiencies and cost savings in HUD's investments ensures that we are good stewards of taxpayer dollars. We must constantly evaluate our programs to ensure that we are delivering services effectively and efficiently to HUD's constituents and responding to today's challenges with the best practices and technologies. Focusing our efforts to break the link between home-based health hazards and associated health impacts shifts the focus from patient to prevention and will help to unlock the potential of children and families nationwide.

