



# HHS Public Access

Author manuscript

*J Public Health Manag Pract.* Author manuscript; available in PMC 2022 February 09.

Published in final edited form as:

*J Public Health Manag Pract.* 2019 ; 25(Suppl 1 Lead Poisoning Prevention): S3–S4. doi:10.1097/PHH.0000000000000867.

## Lead Elimination for the 21st Century

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Now is the time to eliminate lead from children’s environments.

Lead exposure—which can inhibit brain development—poses a significant health threat to hundreds of thousands of American children.<sup>1</sup>

Over time, scientific evidence has accumulated and no safe level of lead for children has been identified. Why then has the elimination of lead hazards in the environment not been more of a priority for society as a whole? Lead poisoning is the longest-lasting childhood epidemic in the United States and has never been treated as one.

Substantial progress has been made in the war on lead. Childhood lead poisoning prevention was named one of the “Ten Great Public Health Achievements in the United States (2001–2010).” Findings of the National Health and Nutrition Examination Surveys (NHANES) revealed steep declines, over a period of about 30 years, in the percentage of children aged 1–5 years with blood lead levels of 10  $\mu\text{g}/\text{dL}$  or more from 88.2% to 0.9%.<sup>2</sup> However, more than 500 000 children have blood lead levels at or above the Centers for Disease Control and Prevention (CDC) reference value of 5  $\mu\text{g}/\text{dL}$ .<sup>1</sup> In addition, there are still stark disparities in blood lead levels by geographic location, housing age, race/ethnicity, and poverty status.<sup>3</sup>

The Flint water crisis highlighted that the problem of lead exposure is far from over and there are thousands of cities across the nation with significant lead hazards. In the wake of Flint, it is clear that lead is not only an environmental health and justice issue but an economic development issue as well. While the populations of industrial cities are the most vulnerable to lead poisoning, none are exempt and even small towns are at risk. The solutions might be different in every community, whether the issue is the aging water infrastructure, older homes with lead-based paint hazards, the removal of hazardous wastes, or all of these plus more.

The Health Impact Project recently estimated the future benefits for children born in 2018 (plus any children born in the households receiving interventions within 10 years) that such investments would yield.<sup>4</sup> These include the following: \$2.7 billion for removing leaded

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The author declares no conflicts of interest.

The findings and conclusions in this report are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry.

drinking water service lines; \$3.5 billion for removing lead paint hazards; \$4.5 billion for ensuring that contractors comply with the US Environmental Protection Agency's rule that requires lead-safe renovation, repair, and painting practices; and \$262 million for protecting children who live near airports by eliminating leaded airplane fuel. Furthermore, they went on to estimate that the maximum potential future benefits of preventing all lead exposure for the 2018 birth cohort could reach \$84 billion.

Any interagency federal effort to systematically identify and remove lead from the environment, as well as address the associated health effects, would be complex and require substantial time, resources, and policy reform. Nevertheless, federal officials from across the government are tackling this problem by collaborating on the *President's Task Force on Environmental Health Risks and Safety Risks to Children* to design a new strategy to address lead hazards in children's environments that goes beyond identifying and monitoring children who are already exposed and connecting them to appropriate services. The Task Force has been working on a new draft federal strategy that seeks to identify opportunities, including the 58 federal programs currently working on lead-related issues.<sup>5</sup> By refocusing federal efforts, the federal government can work together with our partners to develop solutions that address lead exposure and improve health outcomes for children.

Addressing the problem at this stage also could benefit from a coordinated federal-wide effort to evaluate the predominant sources of lead and improve identification and treatment of children identified as lead exposed. To that end, CDC established the Lead Exposure and Prevention Advisory Committee (LEPAC) to advise the Secretary of the US Department of Health and Human Services (HHS) on effective programs; best practices; research needs; and services, including services related to lead screening and the prevention of lead poisoning, health care, education, and nutrition for individuals and communities exposed to lead.

Clear communication regarding the risks of lead exposure and methods to reduce such exposure is important. CDC has been promoting initiatives to increase awareness, eliminate lead paint hazards, and dramatically increase lead poisoning surveillance and home-based follow-up services and will continue to support partners in eliminating lead hazards in water and other sources.

Although CDC has been working in the area of lead poisoning prevention for a long time and tremendous progress has been made, more can be done. Secondary prevention, through blood lead testing and surveillance, provides a critical safety net to ensure that children exposed to lead receive the recommended follow-up services to prevent further exposure and mitigate additional lasting effects. Finding innovative and sustainable strategies for primary lead prevention—the removal of lead hazards from the environment before a child is exposed—is crucial to meeting the Healthy People 2020 goals of eliminating childhood lead exposure.<sup>6,7</sup> This large effort will likely require public-private partnerships with both governmental and nongovernmental agencies as well as industry participating to end this public health scourge once and for all.<sup>8</sup>

The time is now to impact future generations. CDC is committed to help address this threat and improve health outcomes for our nation’s most vulnerable citizens—our children.

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