



# State Levers to Promote Lead Screening and Treatment: Maryland's Strategies

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## Introduction

Childhood lead exposure is associated with lower cognitive function<sup>1</sup> and can have long-lasting consequences on mental health and personality,<sup>2</sup> which can lead to underperformance in school and the workplace. An estimated 4 million US households have children who are exposed to high levels of lead, and 500,000 children ages 1 to 5 have elevated blood lead levels that require public health action.<sup>3</sup>

Due to lead's adverse long-term consequences, addressing lead hazards today can yield future economic benefits and improved health outcomes. Eradicating lead paint hazards in homes built before 1960 is estimated to generate \$3.5 billion in total future benefits, or, \$1.39 per dollar invested.<sup>4</sup> This eradication can protect 311,000 low-income children by potentially increasing their future earnings, generating savings in health and education, and improving their quality-adjusted life years.<sup>5</sup> Because Medicaid covers many low-income children who may be at high risk of lead exposure, promoting children's healthy development by addressing hazardous lead exposures in the home may generate significant long-term savings for states.

The National Academy for State Health Policy (NASH-P)'s [50-State Scan of State Health Care Delivery Policies Promoting Lead Screening and Treatment](#) highlights various Medicaid and non-Medicaid strategies that states use to improve screening rates and reduce hazards. This Maryland case study is part of a series that highlights Medicaid and Children's Health Insurance Program (CHIP) levers to promote lead screening and treatment. Maryland has a comprehensive, cross-agency approach to identifying and treating blood lead poisoning.



### What is the long-term value of lead remediation?

Remediating lead paint hazards in homes built before 1960 is estimated to generate \$3.5 billion in future benefits, which includes earnings, health, and education savings, and quality-adjusted life years for 311,000 low-income children.

## Background

In Maryland, the most common source of lead exposure for children is lead paint dust — either from paint that is deteriorating or from dust created and spread during home renovation. Because the most effective prevention strategy<sup>7</sup> is to reduce or eliminate exposure to lead paint dust, there has been a concerted effort to address lead risks in the home. The Maryland Department of the Environment (MDE) coordinates the [Lead Poisoning Prevention Program](#), which works to ensure compliance with lead poisoning risk reduction requirements since 1994. The program:

- Keeps a registry of inspected housing units;
- Oversees case management follow-up by local health departments of children with elevated blood lead levels;
- Certifies standards for inspectors and contractors; and
- Performs environmental investigations for lead-poisoned children.

Due in large part to these efforts, there have been significant reductions in childhood lead poisonings in Maryland, with the number of child lead poisoning cases (at 10 micrograms per deciliter – 10 ug/dl) dropping more than 98 percent from 1993 to 2016.<sup>8</sup>

## Maryland's Strategies to Increase Screening Rates

**Medicaid Managed Care Organization (MCO) incentive metric:** Maryland Department of Health (MDH) has been implementing a value-based purchasing initiative (VBP) for Maryland's Medicaid MCOs since 1999. The Medicaid program is involved in improving lead screening rates and reducing lead exposure- one lever Maryland MCOs have used to increase screening rates is a measure for lead screenings for children ages 12 to 24 months. In 2016, the threshold for MCOs' to receive a financial incentive for lead screening rates increased from 68 to 69 percent of children aged 12 to 24 months screened. The threshold for plans to receive a financial disincentive increased from 61 to 63 percent of covered children.<sup>9,10</sup>

**Medicaid MCO requirements:** In Maryland, Medicaid MCOs must conduct two performance improvement projects (PIPs) annually. In 2018, one of the PIPs focused on lead screening for children and asthma medication ratios (the ratio of controller medications to total asthma medications).<sup>11</sup> The lead screening PIP used Healthcare Effectiveness Data and Information Set (HEDIS)<sup>12</sup> and Maryland encounter data measure rates as baseline measurements for MCOs in developing the interventions. The HEDIS measure is used to increase the percentage of children who had one or more capillary or venous blood level tests for lead poisoning by age two. The Maryland encounter data measure is used to increase the percentage of children ages 12 to 23 months who receive a lead test during the current or prior calendar year. The goals of the lead PIP were to support lead testing and to ensure that providers and MCOs were aware of available funds for both environmental lead investigations and lead abatement. MCOs conducted a variety of activities as a result of this PIP, including member education, in-home lead testing, community health worker home visits, referrals to lead poisoning programs and local health departments for environmental home assessments, community events, and provider feedback and incentives.<sup>13</sup>

## Maryland Strategies to Ensure Connection to Treatment

**Monthly data sharing:** The Maryland Department of Health also partners with MDE to distribute Childhood Lead Registry information to MCOs monthly. MDE's Childhood Lead Registry is the mechanism for childhood blood lead surveillance in Maryland. This data is provided to the state and local health departments on a quarterly basis for case management and is used to produce an annual report on statewide childhood blood lead levels and testing.<sup>14</sup> Sharing the data more frequently has helped ensure follow-up and tracking of elevated lead tests.<sup>15</sup>

**Children's Health Insurance Program (CHIP) funding for lead risk assessment and abatement:** Maryland submitted

a CHIP State Plan Amendment (SPA) to implement a Health Services Initiative (HSI) to provide lead abatement services for Medicaid-eligible children with blood lead levels of at least 5 micrograms per deciliter (5 ug/dl ) through its Healthy Homes for Healthy Kids program. In 2017, the state received approval from the Centers for Medicare & Medicaid Services for the initiative. The HSI is a statewide initiative led in partnership with the Environmental Health Bureau in the Maryland Department of Health, the Department of Housing and Community Development, and local health departments. Eligible children are identified by the Maryland Childhood Lead Registry, and by direct referrals. The Healthy Homes for Healthy Kids program is administered by Department of Housing and Community Development. The annual program budget for this component of the HSI SPA will be approximately \$2.4 million in fiscal year 2020.<sup>16</sup>

**Environmental case management and assessments:** A subset of pilot counties also participate in a second program under the CHIP HSI that provides environmental case management, home assessment, and educational outreach services to families of Medicaid-eligible children with elevated blood lead levels (EBLL). Under the HSI, Medicaid refers all children with 5 ug/dl or greater in any of the eight participating counties to the local health department for outreach and enrollment in the Environmental Case Management program.<sup>17</sup> The annual program budget for this component of the HSI SPA initiative is approximately \$2.4 million in fiscal year 2020.<sup>18</sup>

**Provider guidelines:** In 2016, Maryland updated the clinical requirements for blood lead testing of children. In addition to the federal requirement that all Medicaid-enrolled children should receive blood lead tests at their 12- and 24-month, well-child visits, Maryland requires all children, regardless of insurance coverage, born on or after Jan. 1, 2015 to be tested for lead at ages 12 and 24 months. Children born before Jan. 1, 2015 are tested according to a 2004 Lead Targeting Plan, which defines specific areas of the state as at risk.<sup>19</sup>

**Reporting:** Maryland state law requires that the office, facility, or laboratory drawing the blood lead test report all results for children up to age 18 to the Childhood Lead Registry. Patient demographic information, including name, complete street address, and zip code must also be reported to track children exposed to lead and identify areas at risk for lead poisoning.<sup>21</sup>

MDE reports test results showing a blood lead level greater than or equal to 10 ug/dl to the state health department and the local health department in the jurisdiction where the child lives.<sup>22</sup> Maryland will implement mandatory reporting for children with EBLL of 5 to 9 ug/dl effective July 1, 2020.<sup>23</sup>

#### **Additional requirements:**

- The Maryland Reduction of Lead Risk in Housing Law, which went into effect in 1996, requires property owners to:
  - o Obtain a limited lead-free certificate from a lead risk assessor for rental properties built prior to 1978;
  - o Register and annually renew registration of their properties with MDE's Lead Poisoning Prevention Program; and
  - o Provide tenants with lead educational materials.<sup>24</sup>
- Maryland recently lowered the blood lead level required to initiate medical case management provided to children and lead risk reduction requirements in rental and owner-occupied properties from 10 ug/dl to 5 ug/dl.<sup>25,26</sup> This requirement goes into effect July 1, 2020.

## Takeaways

Maryland demonstrates how interagency collaboration and a multi-pronged policy strategy can focus attention and advance lead poisoning prevention and treatment. States can work with MCOs to improve screening rates by using value-based purchasing metrics and performance improvement projects. States can also explore using an HSI to direct unused CHIP administrative funds for lead abatement. Statewide requirements, such as mandatory blood lead screening and reporting, as well as tenant protection laws, are other mechanisms that can reduce childhood lead poisoning.

## Notes

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