# Comparative Assessment of Lead Poisoning Screening Practices in Maine & New England

#### **Executive Summary**

Maine's current lead control act, passed in 1991, set the goal of eradicating childhood lead poisoning by 2010. Yet in 2019, lead poisoning remains a real and serious risk to many of Maine's children. The devastating effects of lead exposure on children are undisputed and range from developmental delays that can affect lifelong achievement, to serious muscular and nervous system damage, to immediate or premature death. The most recent empirical research demonstrates that even the lowest levels of exposure can result in permanent brain damage.

A critical step to identifying and eradicating lead poisoning is to conduct screening for children at 1 and 2 years of age. However, **Maine's overall screening rate in 2017 was about 55% for 1-year-old children and 30% for 2-year-olds.** Individual county screening rates are highly variable and ranged from 28.4% to 81.2% for 1-year-old children, and from 8.5% to 73.7% for 2-year-old children. **Even among children enrolled in MaineCare, for whom federal law** *requires* **lead testing at ages 1 and 2, rates are at about 52% and 37%, respectively.** 

Screening rates in Maine are the lowest of all New England states, resulting in hundreds of children being left behind and poorly protected, at great personal and financial cost. Five of the six New England states have adopted universal screening laws to more effectively address lead poisoning and ensure a healthy future for children. Maine remains the lone holdout.

"There is no cure, there is no treatment once the exposure has happened...[universal screening] is the best thing we've got to identify the child who has been exposed to lead and move them away from the hazards to prevent further damage."

> - Health Promotions Advisor, New Hampshire Division of Protective Health Services, Healthy Homes and Lead Poisoning Prevention

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## Maine's Housing Stock Remains a Significant Risk Factor for Lead Poisoning

The federal Centers for Disease Control and Prevention (CDC) recommends "universal screening" (i.e. mandatory blood lead level testing of all children) where greater than 27% of the housing inventory was built before 1950. The higher likelihood of lead paint in older homes is a significant risk of lead poisoning for children residing in the home. In Maine, 29.8% of the housing stock was built before 1950. Only six of sixteen counties in Maine are below this threshold.

- **Maine's housing stock is the sixth oldest in the nation**. Of the 8 states with the oldest housing stock, only Maine and Pennsylvania have yet to adopt universal screening.
- Maine is the only New England state that has not adopted universal screening.
- 55.8% of Maine children are born in counties with greater than 27% of housing built before 1950, placing Maine children at high risk for lead exposure.
- **County percentages for houses built before 1950 range from 23.1% to 35.5%**. Waldo county has the lowest percentage (23.1%) and Knox county has the highest percentage (35.5%).

County

	Percent Housing pre-	Universal	Year
State	1950	Screening	Adopted
1. New York	41.0%	$\checkmark$	1992
2. Massachusetts	39.5%	✓	1987
3. Rhode Island	38.3%	$\checkmark$	1991
4. Pennsylvania	34.4%	×	n/a
5. Iowa	31.8%	$\checkmark$	2008
6. Maine	29.8%	×	n/a
7. Connecticut	29.5%	$\checkmark$	2008
8. Vermont	29.2%	$\checkmark$	2011
New Hampshire (ranked #14)	24.2%	√	2018
United States Median	17.1%	n/a	

Percent of Housing Stock built before 1950

(top 8 states, plus New Hampshire)





Source: American Community Survey



#### Lead Screening Rates in Maine are Low—Even for Children Receiving MaineCare—and Highly Variable Across Counties...



Source: Maine CDC



Source: Maine CDC

<u>Note</u>: The birth cohort percentages are higher than annual screening rates, as they represent the percentage of children born in a given year screened at least once by the time they turn 3. Annual screening rates represent the percentage of children screened in a given year.



Source: Maine CDC

<u>Note</u>: Federal law requires that all children enrolled in MaineCare be tested for blood lead levels at both their one- and two- year well visits.

## ...Placing Maine Behind Every State in New England





<u>Note</u>: Connecticut not included in above graphic because its information is incomplete in the CDC database. State-level data, however, indicates that between 95-100% of Connecticut children are tested for lead by the age of 3.

### Hundreds of Maine Children's Lives Have Been Negatively Affected By Lead Poisoning

- Between 2013-2017, 1,782 Maine children were identified as lead poisoned.
- **If Maine achieved higher levels of screening**, additional children with elevated blood lead levels would be identified and protected from further harm.
- Approximately 853 additional Maine children would have been identified as lead poisoned between 2013-2017 if all counties screened as consistently as Washington County did in 2017<sup>+</sup>



Source: Maine CDC

#### Lead Poisoning in Maine Results in Significant Costs of Approximately \$1.9 billion

- It is estimated that lead poisoning results in an average loss of lifetime earnings of \$723,000 per child.\*
- Applied to the estimated 853 undiagnosed children in Maine, between 2013-2017 there was a **potential loss of earnings of approximately \$617 million**.
- Applying these lost earnings to the total number of both confirmed and unidentified lead poisoned children in Maine between 2013-2017, the potential total loss is about \$1.9 billion.
- In addition to the economic impact on affected individuals, research has demonstrated conclusively that lead poisoning continues to cause increases in health care and special education costs, among others, for communities across the nation.

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- + To estimate the number of these unidentified children, we applied the screening rate of the highest performing county
- (Washington) to the total number of children in Maine.
- \* National Center for Environmental Health, Centers for Disease Control and Prevention. Grosse et al. "Economic Gains Resulting from the Reduction in Children's Exposure to Lead in the United States," Environmental Health Perspectives 110:563–569, June 2002.