2022 WHAT THE DATA TELLS US

LEAD EXPOSURE IN NEW HAMPSHIRE

While there can be more than one source contributing to a child's elevated blood lead—in NH, children are almost always poisoned by lead dust generated from old lead paint in their homes.

816 NH children were poisoned from lead paint in older homes, resulting in elevated blood lead levels high enough to impair their ability to think, learn, and concentrate.

Figure 1: The number of children with elevated blood lead levels is increasing to near pre-pandemic levels.

NH is seeing an increasing number of children, 72 months and younger, with new capillary and venous blood lead levels of 3.5 micrograms per deciliter (ug/dL) or higher. At this level, the CDC now recommends medical case management for the child and an environmental investigation to determine where the lead hazards are in the home.

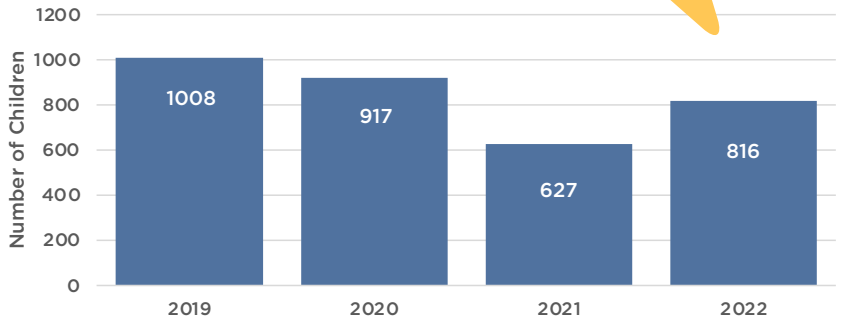
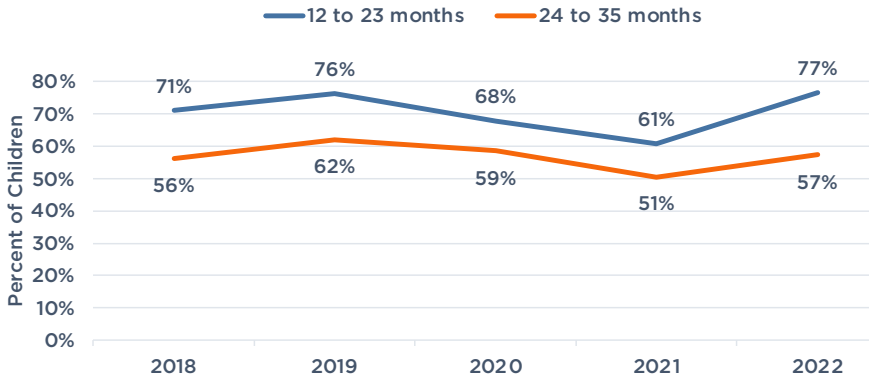


Figure 2: Blood lead testing rates for 1-year-olds are at pre-pandemic levels. 2-year-old children are still not getting tested enough.

Percentage of 1- and 2-year-old children tested for blood lead levels between 2018 and 2022

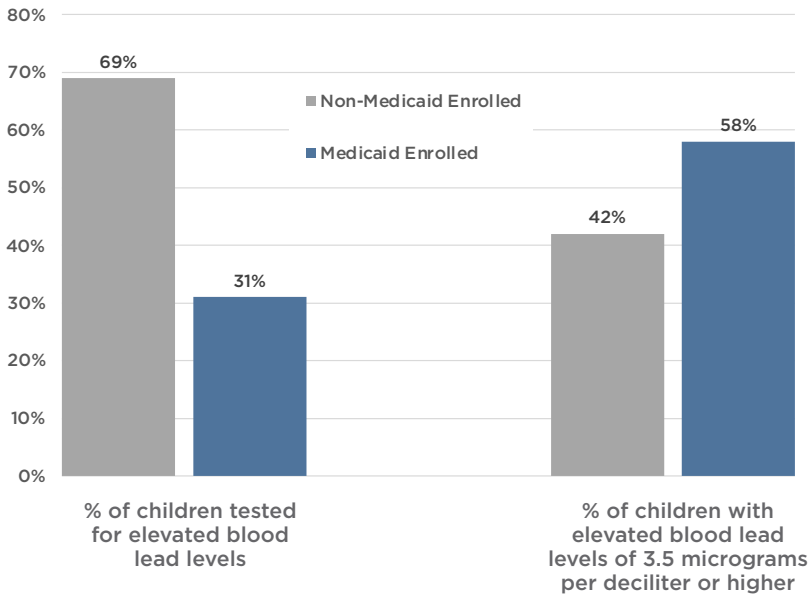


Children Insured by Medicaid Are at Higher Risk for Elevated Blood Lead Levels

Figure 3: Children, 72 months and younger, who are insured by Medicaid are tested less frequently but are identified more often to have elevated blood lead levels.

Even though NH children enrolled in Medicaid only comprise 31% of all children tested for blood lead levels, they represent 58% of those with elevated venous blood lead levels.

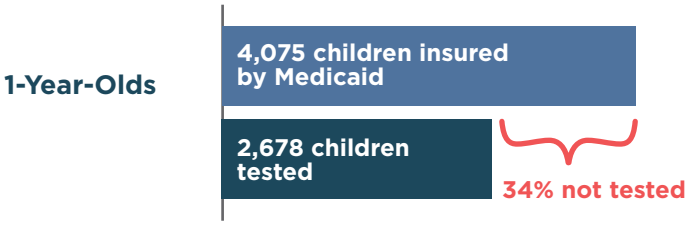
Children from low-income households are at higher risk of lead exposure.



Testing Rates for Children Insured by Medicaid

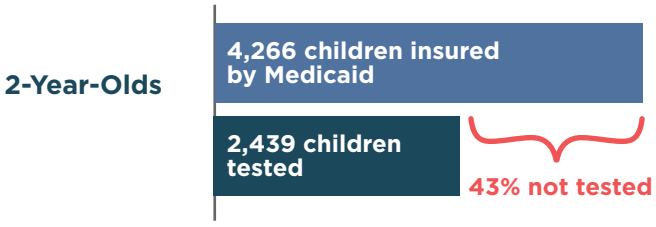
Though testing rates for children insured by Medicaid are slowly recovering to pre-pandemic levels, they are not meeting state and federal requirements.

Figure 4: 34% of 1-year-olds are NOT tested for elevated blood lead levels.



Among the number of NH's 1-year-olds continuously enrolled in Medicaid for at least 12 months prior to their second birthday, an estimated 66% were tested for blood lead levels in 2022.

Figure 5: 43% of 2-year-olds are NOT tested for elevated blood lead levels.



Among the number of NH's 2-year-olds continuously enrolled in Medicaid for at least 12 months prior to their third birthday, an estimated 57% were tested for blood lead levels in 2022.

All children enrolled in Medicaid are required by state and federal law to have a blood lead level test at age 12 months and a second test at age 24 months.

Sources of Childhood Lead Exposure in the United States

The most common source of exposure for young children in the US is lead paint in older homes.[1]

70%

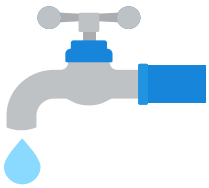
Lead paint in housing

15%

Lead in consumer products[2]

15%

Lead in drinking water

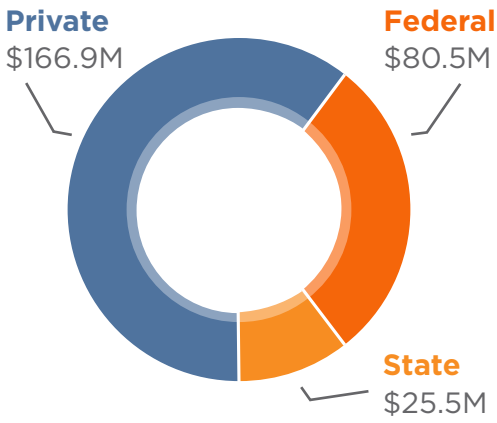


The Cost of Lead Exposure

$272.9M

Total lifetime economic burden of childhood lead exposure in NH.

Calculated by Atlarum[3] based on 2019 birth cohort of 850 children with a blood lead level of 2 micrograms per deciliter or higher. Includes costs of reduced lifetime productivity; increased healthcare, education, and social assistance spending; and premature mortality.[3]



- **Private $166.9M:** Burden on the private sector and household[3]
- **Federal $80.5M:** Burden on federal budgets[3]
- **State $25.5M:** Burden on state and local budgets[3]

$17–$221

A 2009 study determined that every dollar invested in lead-paint hazard control returns $17–$221 to society.[4]

Table 1: **2022 Testing Data for Children in New Hampshire's Public Health Regions**

REGIONAL PUBLIC HEALTH NETWORK	AGE GROUP (In months)	POPULATION ESTIMATE[5]	TOTAL NUMBER TESTED	PERCENTAGE TESTED	NUMBER OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS 3.5 UG/DL OR HIGHER, NEW VENOUS OR CAPILLARY CASES*	NUMBER OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS 5 UG/DL OR HIGHER, NEW VENOUS CASES ONLY*
CAPITAL AREA	0–72	7,714	1,697	22%	78	24
	12–23	1,223	870	71%	42	15
	24–35	1,310	626	48%	23	5
CARROLL COUNTY	0–72	2,095	451	22%	15	<5
	12–23	304	196	65%	6	<5
	24–35	351	180	51%	7	<5
CENTRAL NH	0–72	1,345	166	12%	22	6
	12–23	226	91	40%	12	6
	24–35	201	48	24%	5	0
GREATER MANCHESTER	0–72	12,347	3,202	26%	132	31
	12–23	2,043	1,614	79%	65	15
	24–35	2,000	1,240	62%	51	15
GREATER MONADNOCK REGION	0–72	5,648	1,507	27%	79	37
	12–23	899	746	83%	46	24
	24–35	915	560	61%	14	8
GREATER NASHUA	0–72	13,441	3,551	26%	107	23
	12–23	2,062	1,688	82%	52	10
	24–35	2,093	1,316	63%	37	10
GREATER SULLIVAN COUNTY	0–72	2,248	688	31%	69	22
	12–23	368	344	94%	31	11
	24–35	369	204	55%	19	5

*Exact numbers cannot be reported when there are between 1 and 4 cases due to suppression guidelines to protect privacy.

Table 1: ***Continued***

REGIONAL PUBLIC HEALTH NETWORK	AGE GROUP (In months)	POPULATION ESTIMATE[5]	TOTAL NUMBER TESTED	PERCENTAGE TESTED	NUMBER OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS 3.5 UG/DL OR HIGHER, NEW VENOUS OR CAPILLARY CASES*	NUMBER OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS 5 UG/DL OR HIGHER, NEW VENOUS CASES ONLY*
NORTH COUNTRY	0–72	2,515	493	20%	43	12
	12–23	404	223	55%	21	7
	24–35	458	203	44%	16	5
SEACOAST	0–72	8,333	2,042	25%	47	<5
	12–23	1,351	1,019	75%	29	<5
	24–35	1,339	785	59%	15	0
SOUTH CENTRAL REGION	0–72	8,416	2,211	26%	25	9
	12–23	1,311	1,004	77%	12	<5
	24–35	1,377	784	57%	8	<5
STRAFFORD COUNTY	0–72	7,289	1,747	24%	110	23
	12–23	1,211	916	76%	62	15
	24–35	1,189	650	55%	36	6
UPPER VALLEY	0–72	2,275	657	29%	25	<5
	12–23	406	320	79%	18	<5
	24–35	333	253	76%	5	<5
WINNIPESAUKEE REGION	0–72	4,085	958	23%	64	27
	12–23	637	494	78%	39	20
	24–35	658	362	55%	16	<5
STATE OF NEW HAMPSHIRE	0–72	77,750	**19,370**	25%	**816**	225
	12–23	12,446	**9,525**	77%	**435**	135
	24–35	12,593	**7,211**	57%	**252**	62

Endnotes

[1] Levin R, Brown MJ, Kashtock ME, Jacobs DE, Whelan EA, Rodman J, et al. Lead exposures in U.S. children, 2008: implications for prevention. Environ Health Perspect. 2008;116(10):1285–93.

[2] Consumer products can include imported toys, antique toys, jewelry, plastic, antique items, dishware, ceramics, imported food and spices, imported cosmetics, cultural powders, and more. For more information, visit www.cdc.gov/nceh/lead/prevention/sources/consumer-products.htm

[3] Valueofleadprevention.org

[4] Gould E. Childhood lead poisoning: conservative estimates of the social and economic benefits of lead hazard control. Environmental Health Perspectives. 2009 July;117(7):1162-1167.

[5] Population data used as denominators were obtained from 2022 NH Department of Health and Human Services, Bureau of Public Health Statistics and Informatics population estimates.

[6] Table 13 Comprehensive Housing Affordability Strategy (CHAS) data published by Housing and Urban Development on September 5, 2023, based on 2016-2020 5-Year American Community Survey data.

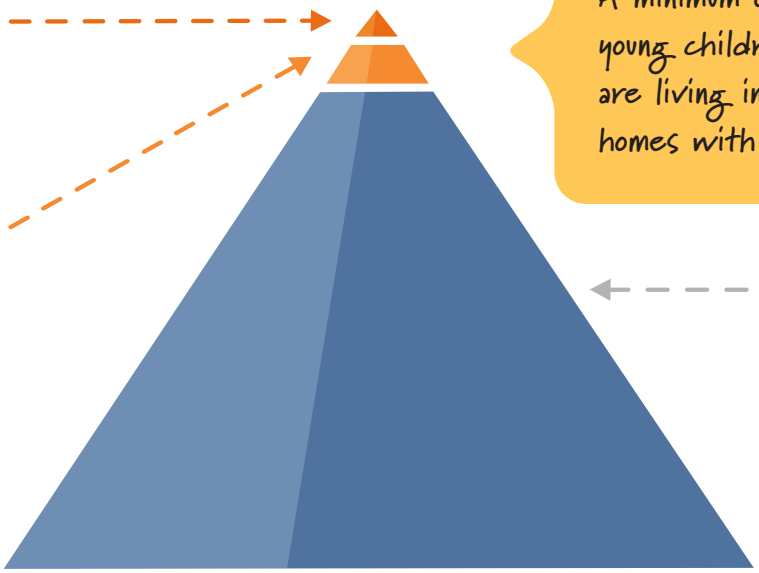
Where to Focus Housing Policy and Funding to Keep NH Children Lead-Safe

4%

Renter-occupied housing units built before the residential lead-paint ban where children under age 6 reside: 12,315 units.

7%

Owner-occupied housing units built before the residential lead-paint ban where children under age 6 reside: 20,035 units.



A minimum of 32,350 young children in NH are living in older homes with lead paint.

89%

All occupied housing units built before the residential lead-paint ban where adults reside with no young children: 253,940 units.[6]

Successful Primary Prevention Strategies Implemented in New England States

Effective strategies to consider!

New Hampshire	Claremont, NH	Vermont	Massachusetts	Connecticut
Require a Certificate of Lead-Safety prior to occupancy in newly constructed rental properties and newly licensed child care facilities located in pre-1978 buildings	Include EPA's Renovation, Repair, and Paint Certification ID number on building permits for any contractor working on a pre-1978 residential property	When a rental unit turns over, require property owners to conduct essential maintenance practices that include visual assessment for chipping, peeling, and flaking paint	Implement a statewide requirement for rental inspections for lead hazards prior to occupancy. Include lead-paint hazards in state's Minimum Standards for Human Habitation	Require that rental disclosure documents include information on lead-dust wipes and visual inspections for peeling, chipping, and flaking paint

NEW HAMPSHIRE DHHS DEPARTMENT OF HEALTH & HUMAN SERVICES

This data brief was prepared by the NH Department of Health & Human Services, Division of Public Health Services, Healthy Homes & Lead Poisoning Prevention Program. This publication was supported by the Center for Disease Control & Prevention (CDC) Cooperative Agreement #NUE2EH001457. Its contents are solely the responsibility of the authors and do not represent the official views of the CDC. Please send comments/questions/feedback to HHLPPP. Data@DHHS.NH.gov.