



NH Childhood Lead Poisoning Prevention Program

New Hampshire Blood Lead Surveillance Data 2008

This report is an overview of the 2008 blood lead testing data for New Hampshire residents as reported to the New Hampshire Department of Health and Human Services (NH DHHS). The Childhood Lead Poisoning Prevention Program (CLPPP) analyzes the data annually.

The work described here was partially funded by a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC).

Although the blood lead level (BLL) elevation rate in New Hampshire has been declining over the past decade, children continue to be exposed to this toxic metal. In 2008, 140 New Hampshire children under the age of six were newly identified with an elevated BLL. These children are more likely to suffer persistent developmental delays, learning disabilities and behavioral problems as a result of their exposure to lead.

New Hampshire statute RSA 130-A requires reporting of all blood lead analyses for New Hampshire residents to the CLPPP. An estimated 50 licensed laboratories that service approximately 1500 medical clinics, hospitals, and employer groups report to the program.



The CLPPP maintains an extensive blood lead surveillance system for the purpose of monitoring trends in BLLs in adults and children in New Hampshire. As of January 1, 2009, the database contained 265,911 records of blood lead test results from 177,099 individual New Hampshire residents dating back to 1985.

The data are used to help identify populations at risk for elevated BLL, to determine whether screening guidelines are being followed in high-risk populations, and to ensure that appropriate environmental and medical follow-up are provided to children with elevated BLLs.



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Table 1: Newly Confirmed Elevated Blood Lead Levels (≥ 10 ug/dL) by Year, NH

Year	Age Range (months)	Lead Level (ug/dL)			Total	Confirmed Elevations/Total Children Screened (%)
		10-14	15-19	20+		
2003	0-11	11	2	3	16	0.8%
	12-23	87	34	18	139	2.1%
	24-35	49	13	13	75	2.5%
	36-71	33	4	8	45	2.1%
	Total	180	53	42	275	2.0%
2004	0-11	15	2	8	25	1.2%
	12-23	89	25	24	138	2.0%
	24-35	35	13	16	64	2.0%
	36-71	40	9	7	56	2.6%
	Total	179	49	55	283	1.9%
2005	0-11	8	4	3	15	0.8%
	12-23	77	26	10	113	1.6%
	24-35	36	13	8	57	1.7%
	36-71	19	7	4	30	1.6%
	Total	140	50	25	215	1.5%
2006	0-11	4	0	1	5	0.2%
	12-23	57	19	22	98	1.2%
	24-35	37	8	11	56	1.7%
	36-71	27	7	8	42	2.6%
	Total	125	34	42	201	1.3%
2007	0-11	7	3	4	14	0.8%
	12-23	51	25	17	93	1.2%
	24-35	28	9	4	41	1.1%
	36-71	13	6	3	22	1.0%
	Total	99	43	28	170	1.1%
2008 [†]	0-11	5	1	1	7	0.4%
	12-23	33	23	5	61	0.8%
	24-35	30	10	6	46	1.2%
	36-71	20	3	3	26	1.1%
	Total	88	37	15	140	0.9%

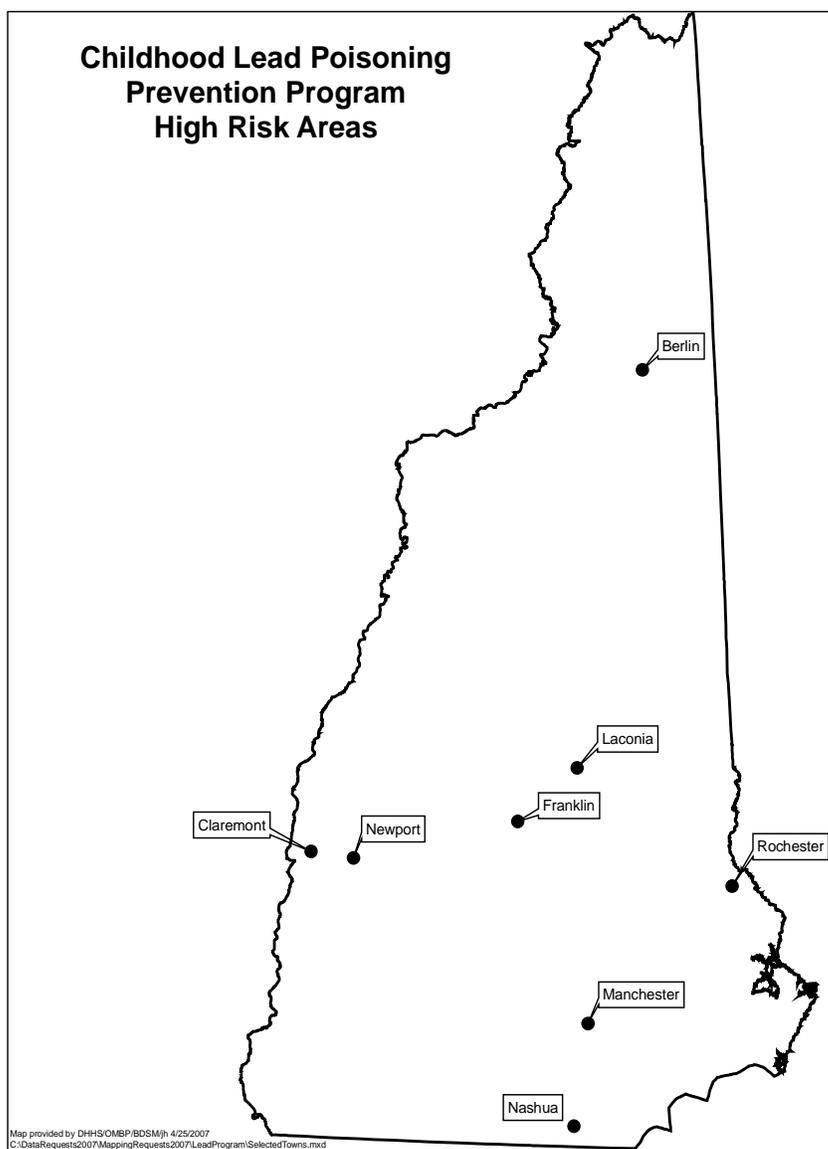
[†]Definition of confirmed elevations changed slightly



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Several factors influence the rate of lead poisoning in a community: the percentage of pre-1950 housing stock; the fraction of the population that is under the age of six; the fraction under the age of six living in poverty; the percentage of children under the age of six enrolled in Medicaid or other federal assistance programs; and special populations living in the communities all affect the rate. In 2008, the communities of Berlin, Claremont/Newport, Franklin, Laconia, Manchester, Nashua and Rochester were identified as higher risk due to the increased prevalence of risk factors in these areas.

Table 2 lists the percentage of children screened, by age and high-risk community, compared to all other towns, over the past three years and gives an indication of how screening practices have changed. Only data for children less than six years old are presented. In 2008, 1.9 % of all children screened in Manchester aged 0-71 months had an elevated BLL. In Laconia, 4.2 % of all children screened aged 0-71 months had an elevated BLL. In comparison, the statewide elevation rate for children aged 0-71 months was 0.9 %.





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Table 2: 2006-2008 Blood Lead Screens, NH

Town	Family Income <= 200% FPL (%) ¹	Pre-1950 Housing (%) ²	Age Group (months)	2006 Screens		2007 Screens		2008 Screens ⁶	
				Estimated % of Population Screened ³	Confirmed Elevations/ Total Children Screened ^{4,5}	Estimated % of Population Screened	Confirmed Elevations/ Total Children Screened	Estimated % of Population Screened	Confirmed Elevations/ Total Children Screened
Berlin	33.2%	69.0%	12-23	94.8%		72.2%		86.1%	
			24-35	68.6%		64.7%		72.5%	
			0-71		2.5%		0.5%		2.3%
Claremont	27.9%	49.7%	12-23	83.7%		65.2%		72.3%	
			24-35	48.4%		51.6%		43.2%	
			0-71		2.8%		1.6%		2.4%
Newport	31.8%	41.6%	12-23	94.4%		87.3%		70.4%	
			24-35	50.0%		40.9%		48.9%	
			0-71		3.8%		1.7%		0.8%
Franklin	35.6%	50.9%	12-23	40.3%		55.0%		53.5%	
			24-35	18.0%		23.4%		24.2%	
			0-71		7.4%		2.9%		3.9%
Laconia	27.8%	44.8%	12-23	42.7%		62.9%		65.2%	
			24-35	11.1%		18.1%		25.7%	
			0-71		2.5%		1.1%		4.2%
Manchester	25.9%	43.8%	12-23	77.5%		75.1%		73.6%	
			24-35	38.6%		52.1%		45.9%	
			0-71		2.7%		2.0%		1.9%
Nashua	18.8%	25.8%	12-23	43.6%		47.5%		52.1%	
			24-35	18.3%		20.9%		29.7%	
			0-71		0.9%		0.9%		0.4%
Rochester	24.1%	31.5%	12-23	56.2%		59.9%		61.5%	
			24-35	39.6%		38.0%		44.2%	
			0-71		1.4%		1.8%		1.2%
All Other Towns	17.6%	26.1%	12-23	50.4%		48.6%		47.7%	
			24-35	19.2%		21.3%		21.3%	
			0-71		0.9%		0.8%		0.5%
NH Total	19.0%	28.8%	12-23	53.5%		52.2%		52.0%	
			24-35	22.3%		25.4%		25.7%	
			0-71		1.3%		1.1%		0.9%

¹ Federal poverty level = \$13,290 for 3 person household, source: US Census 2000

² US Census, 2000

³ **SCREENS** = any test in this calendar year where the child has never had a confirmed elevation, only includes one test per child for time frame

⁴ **CONFIRMED ELEVATIONS** = children confirmed as elevated (one venous >=10) for the first time

⁵ Rates may be unstable due to small numbers

⁶ Methodology and definition changed slightly in 2008, however, still comparable to previous years



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In order to reach the goal of elimination, New Hampshire is focusing on these high-risk areas through community involvement, primary prevention strategies and targeted screening.

The 2008 screening data shows that many of the higher risk communities have screening rates among children age 12-23 months that are higher, at 54 – 86 %, than the statewide screening rate of 52 %. These data indicate that targeted screening recommendations are being implemented in some of these communities. NH CLPPP recommends testing all 1 and 2 year-olds in high-risk communities. A community where the percentage of housing built before 1950 is greater than or equal to 27% is designated as high-risk. In low-risk communities, NH CLPPP recommends testing 1 and 2 year-olds based on individual risk.

Environmental Data

NH CLPPP nurse case managers make environmental referrals for further investigation on cases where children have an elevated BLL greater than or equal to 10 micrograms per deciliter of blood (mcg/dL). Prior to the changes to New Hampshire's Lead Law (RSA 130-

A), effective on January 2, 2008, referrals were made on cases where children had an elevated BLL greater than or equal to 20 mcg/dL or a persistent BLL of 15 - 19 mcg/dL. Based on the context of a particular case, more than one referral can be made for a child. Also, if there is already an ongoing environmental investigation at a particular property and a child is newly identified with an elevated BLL there, no additional referral is made. In 2007, nurse case managers made 36 referrals. In 2008, nurse case managers made 150 referrals.



The changes to RSA 130-A, that became effective January 2, 2008, included a primary prevention approach that requires that all units in a building be inspected for lead exposure hazards once a hazard has been identified in the unit occupied by the child with an elevated BLL. Table 3 illustrates the number of investigations performed by CLPPP environmentalists in 2007 and 2008. In 2008, the table provides the data for both the units occupied by children with elevated BLLs (primary) and the subsidiary units.



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Table 3: Environmental Investigations, NH, 2007-2008

Number of Investigations and Outcomes				
Property Type			2007*	2008
Rental	Primary	Closed	4	11
		Letter of Recommendation	3	4
		No Lead Found	0	7
		Order	15	68
	Subsidiary	Closed	N/A	0
		Letter of Recommendation	N/A	1
		No Lead Found	N/A	16
		Order	N/A	128
Owner-occupied	Primary	Closed	2	8
		Letter of Recommendation	10	37
		No Lead Found	1	1
	Subsidiary	Closed	N/A	0
		Letter of Recommendation	N/A	1
		No Lead Found	N/A	1
Other/Child-Care Facility		Closed	2	3
		Letter of Recommendation	2	4
		No Lead Found	0	0
		Order	0	0

These data are compiled by calendar year, using the date of investigation.

*In 2007, CLPPP re-inspected 103 properties with outstanding Orders of Lead Hazard Reduction to determine if lead hazards still existed. Eighty-one of these inspections resulted in re-Orders. The data in the table above do not include these numbers.

Key

Closed : No inspection performed due to initial investigatory findings.

Letter of Recommendation : Lead exposure hazards identified during inspection, no Order of Lead Hazard Reduction issued (e.g. owner-occupied units, units that are not the child's primary residence)

No Lead Found : No lead found during inspection.

Order : Order of Lead Hazard Reduction issued when lead exposure hazards are identified during inspection of a rental unit

Primary : Unit occupied by child with an elevated BLL

Subsidiary : Additional units in building/property

For further information or to request a copy of this data, contact the CLPPP:
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