

660 NH CHILDREN HAD ELEVATED BLOOD LEAD LEVELS EQUAL TO OR ABOVE 5 μ G/DL IN 2015



EXECUTIVE SUMMARY

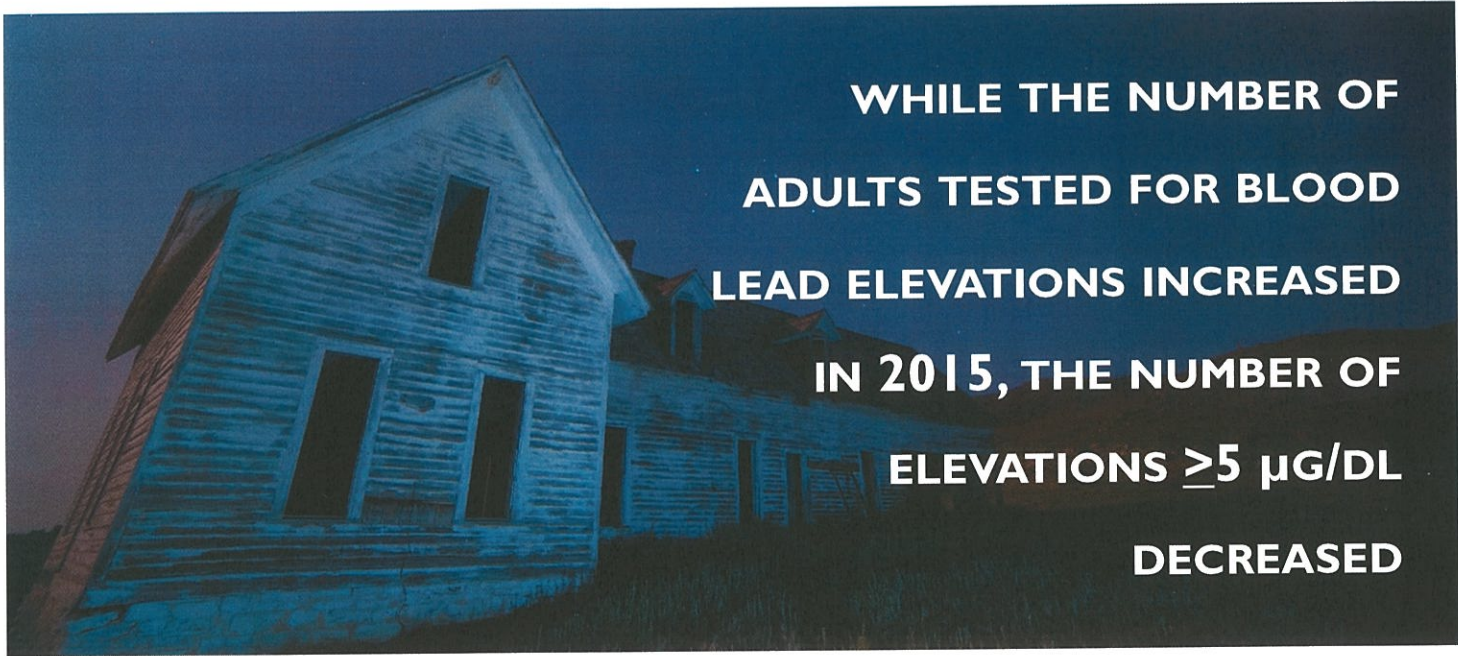
The New Hampshire (NH) Department of Health and Human Services (DHHS), Division of Public Health Services (DPHS), Healthy Homes & Lead Poisoning Prevention Program (HHLPPP) is mandated to collect the blood lead test results of children and adults who are residents of New Hampshire. In 2015, **13,372** children (15.7%) in New Hampshire under the age of 6 years were tested for blood lead levels. Of those children tested, 53% were aged 12 to 23 months and 27% were aged 24 to 35 months.

Among these children tested, **660** (4.9%) had elevated blood lead levels equal to or above (\geq) 5 micrograms per deciliter (μ g/dL), the reference level set by the Centers for Disease Control and Prevention (CDC).¹ Of these 660 children with Elevated Blood Lead Levels (EBLLs), 82% were White and 70% were insured by Medicaid.

Over 54% of new elevations \geq 5 μ g/dL in 2015 were identified among children residing in communities designated as New Hampshire's 21 highest-risk communities for lead exposure. However, the number of children with new blood lead elevations \geq 5 μ g/dL decreased from 2014.

Eighty-two children had blood lead levels \geq 10 μ g/dL. Among these 82 children, 62 were new elevations that occurred in 2015 in which nurse case management and environmental investigations were initiated. The remaining twenty children were already in case management from previous years. One child had a confirmed, venous blood lead level \geq 45 μ g/dL, resulting in medical chelation therapy, a procedure for the most severe cases of lead poisoning.

¹CDC has established the reference level of 5 μ g/dL to identify children with blood lead levels that are much higher than most children's levels. Approximately 500,000 children in the U.S. exceed this reference level, which is based on the U.S. population of children ages 1 to 5 who are in the highest 2.5% of children tested for lead in their blood. While no safe blood lead level in children has been identified, a level of \geq 5 μ g/dL indicates a recommendation for case management and action to reduce the child's future lead exposure (CDC, 2016).



**WHILE THE NUMBER OF
ADULTS TESTED FOR BLOOD
LEAD ELEVATIONS INCREASED
IN 2015, THE NUMBER OF
ELEVATIONS ≥ 5 $\mu\text{g}/\text{dL}$
DECREASED**

In 2015, we also noted that **21.6%** of New Hampshire's refugee children under the age of six years old who were tested for lead poisoning had elevations ≥ 5 $\mu\text{g}/\text{dL}$, as compared to 4% of children tested statewide. An estimated 40% of school-age children have had a blood lead elevation ≥ 5 $\mu\text{g}/\text{dL}$ at some point in their lives. Fortunately, the proportion of historical elevations among school-age children is declining.

The HHLPPP environmentalists initiate investigations at the residential homes of all children who have blood lead levels that are ≥ 10 $\mu\text{g}/\text{dL}$ to identify the potential source(s) of the child's poisoning. When a poisoned child resides in a multi-unit property with lead hazards, environmentalists often investigate other units in the same property. In 2015, the HHLPPP investigated 155 housing units. As a result of these investigations, the DHHS issued 120 Administrative Orders of Lead Hazard Reduction (Orders) for the removal of lead

hazards at 40 properties. An additional 20 letters with specific recommendations on strategies to make the home safe from lead hazards were sent to the parents of children with an elevated blood lead level (EBLL) who own their own homes.

Surveillance data were also collected statewide for adults over the age of 16 years tested for blood lead. A total of **2,697** adult blood leads were reported to the HHLPPP, of which **378** had new elevations ≥ 5 $\mu\text{g}/\text{dL}$. While the number of adults tested for blood lead elevations increased in 2015, the number of elevations ≥ 5 $\mu\text{g}/\text{dL}$ decreased as compared to 2014.

Funded to build capacity among New Hampshire's licensed lead professionals, the HHLPPP administered licenses to 3 Lead Inspectors, 18 Risk Assessors, 5 Trainers, 92 Abatement Contractors, 35 Abatement Supervisors, and 135 Abatement Workers in 2015.

The HHLPPP continues to be successful in securing funding from the CDC, the U.S. Environmental Protection Agency, New Hampshire Office of Medicaid, State General Funds, the Preventive Health and Health Services Block Grant, and the dedicated Lead Poisoning Prevention Fund to support staff and program activities. In addition to our federal partners, the HHLPPP collaborated with both internal partners (e.g., Environmental Public Health Tracking Program) and external partners (e.g., Community Health Institute, Conservation Law Foundation, the Cities of Manchester and Nashua Health Departments) in delivering services for the prevention of childhood lead poisoning.

NOTABLE 2015 ACCOMPLISHMENTS ATTRIBUTED TO THESE PARTNERSHIPS INCLUDE:

- Hiring of a full-time Health Promotion Advisor to provide education and outreach to high risk communities.
- Plans for the deployment of a new, state-of-the-art surveillance and case management software were initiated, with a target deployment period of spring 2017.

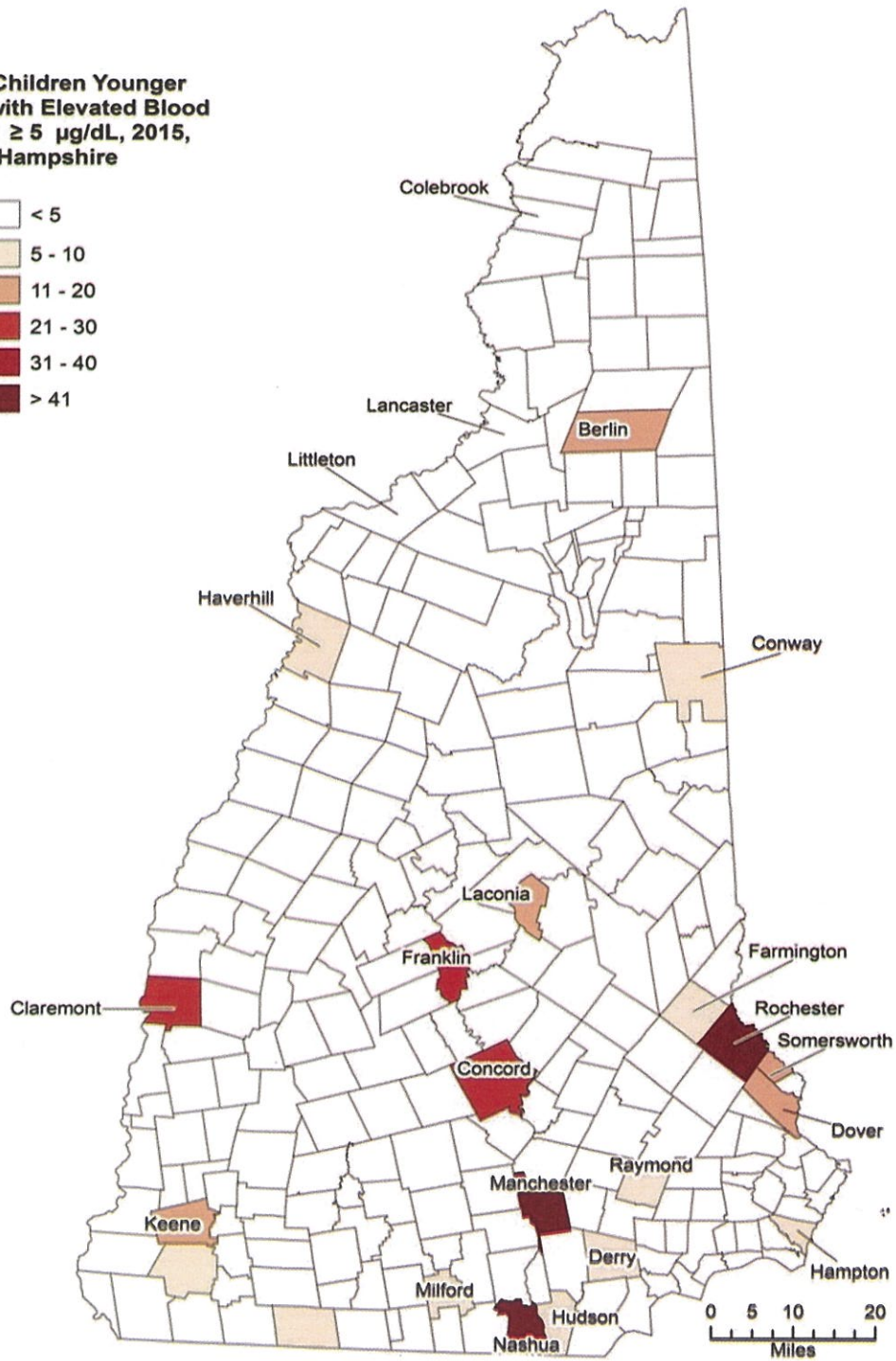
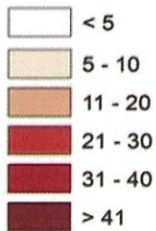
This software will improve the quality of surveillance data used to inform the legislature and to educate healthcare providers and citizens.

- Passage of Senate Bill 135, which established a legislatively-appointed Commission on Childhood Lead Poisoning Prevention and Screening and tasked the Commission with exploring strategies for primary prevention and increasing blood lead testing rates.
- Passage of Senate Bill 135, which established a goal of an 85% testing rate for one- and two-year-old children living in Universal screening communities or who are enrolled in Medicaid, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), or Head Start.
- Passage of Senate Bill 135, which established parent and property owner notification for children with elevations between 5 – 9 $\mu\text{g}/\text{dL}$ with education about lead risk factors and hazards.

MAP I

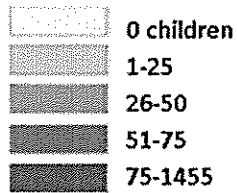
Distribution of Blood Lead Levels ≥ 5 $\mu\text{g/dL}$ Among Children Younger Than 6 in NH, 2015

Number of Children Younger than 6 years with Elevated Blood Lead Levels ≥ 5 $\mu\text{g/dL}$, 2015, New Hampshire



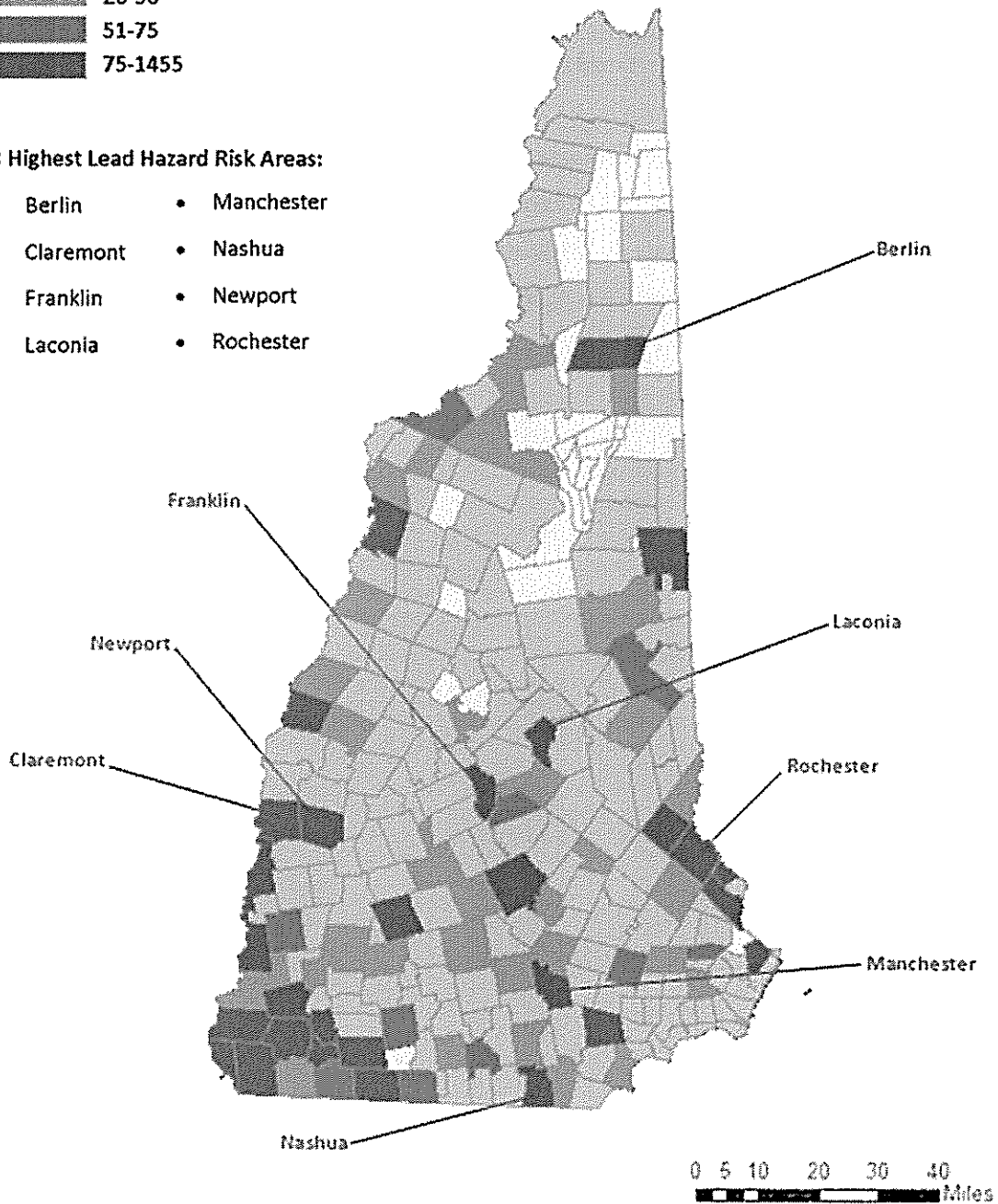
Map 1 - New Hampshire Children <6 yo. with EBL > 5mcg/dL by Town, 2009-2014

**Number of children with
EBL > 5mcg/dL, 2009-2014**



8 Highest Lead Hazard Risk Areas:

- Berlin
- Claremont
- Franklin
- Laconia
- Manchester
- Nashua
- Newport
- Rochester





2015 LEAD POISONING IN NEW HAMPSHIRE

Lead poisoning is entirely preventable. However, nearly 1 million children living in the United States have blood lead levels high enough to impair their ability to think, concentrate, and learn.

The most common source of lead exposure for children today is lead paint in older housing and the contaminated dust and soil it generates. New Hampshire has the oldest housing of anywhere in the United States. The developing brains of young children are especially vulnerable to lead contaminated dust and soil. The damage to a child's brain caused by lead poisoning can be permanent.

The NH Healthy Homes & Lead Poisoning Prevention Program (HHLPPP) works to address the risk of lead poisoning and other health and safety issues that stem from the home environment. As part of this mission, the HHLPPP collects data on blood lead levels of children and adults across the state in order to target resources towards high risk communities and populations.



New Hampshire has the oldest housing of anywhere in the United States, with 62% of its homes built before lead-based paint was banned in 1978.

Children exposed to even low levels of lead can have learning disabilities, lower IQ, speech and language delays, hearing loss, increased aggression, impulsivity, behavior problems, poor school performance, and failing test scores.



Childhood Lead Poisoning

A child who looks and acts healthy can have lead poisoning. The only way to know that a child has lead poisoning is by performing a simple blood test. The HHLPPP collects these test results to monitor lead poisonings around the state and to ensure poisoned children receive appropriate services. While no safe blood lead level in children has been identified, the Centers for Disease Control and Prevention recommends public health action be taken at any blood lead levels 5 µg/dL and above.

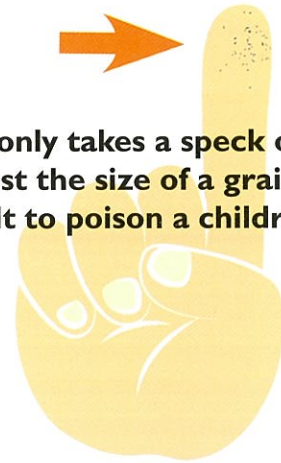
In 2015, only 16.8% of New Hampshire children under the age of 6 were tested for lead poisoning

16.8%



660 New Hampshire children were identified with lead poisoning in 2015 and received care coordination from the HHLPPP

It only takes a speck of lead dust the size of a grain of salt to poison a children



An estimated 40% of NH's school-age children have had an elevated blood lead level at some point in their lives



1 in 3 lead poisoned children lives in a home that was renovated in the past 6 months

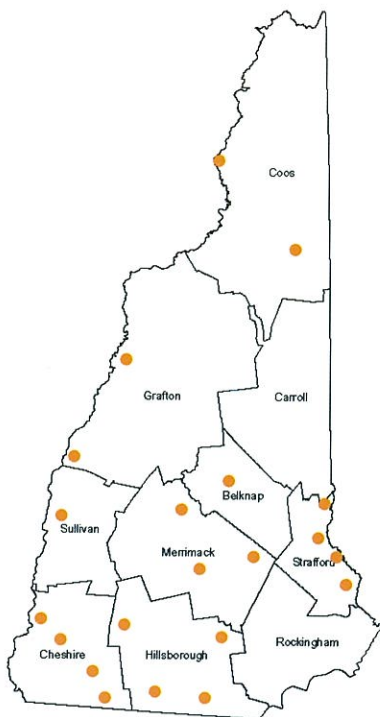


NH Department of Health and Human Services, Special Medical Services is a program for children with special health care needs who have, or are at risk for, a chronic medical condition, disability or special health care need. Children with special health care needs require health and related services of a type beyond that generally required by children.

34% of children receiving Special Medical Services who were tested were lead poisoned, compared to 4% of children statewide.

4% 34%

New Hampshire's 21 Highest Risk communities include:



Antrim
Berlin
Claremont
Concord
Dover
Franklin
Greenville

Haverhill
Keene
Laconia
Lebanon
Manchester
Nashua
New Castle

Pittsfield
Rindge
Rochester
Somersworth
Stratford
Troy
Walpole

What to do

1. **Test all one and two year olds for lead.**
2. **Hire a licensed lead inspector** to find out if your home has lead hazards.
3. **Use an EPA “RRP Certified” contractor** who understands how to use lead-safe work practices when renovating or repairing your home.
4. **Regularly wash** hands, toys, bottles, pacifiers, floors, windowsills, and other areas where leaded dust may settle.
5. **Be careful that you don’t bring home lead dust** from your job site or hobby.
6. **Check if you qualify for a lead grant** to cover some of the costs of removing lead from your home.

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For more information, see the full 2015 Lead Exposure Surveillance Report at <http://www.dhhs.nh.gov/dphs/bchs/clpp/publications.htm> or contact HHLPPP at (800)897-LEAD.

References

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660

**NEW HAMPSHIRE
CHILDREN WERE
POISONED BY LEAD
IN 2015**

OPEN TO LEARN MORE