

# Childhood Lead Poisoning in the North Shore

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A 2017 Report

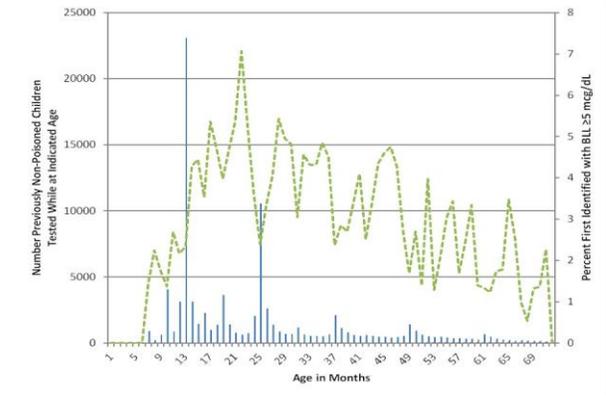
## Risk Factors for Childhood Lead Poisoning

The Wisconsin Department of Health Services identifies these categories that increase a child's risk to have an elevated blood lead level: age of child, age of housing, family income, and pockets of risk.

### Age of Child

#### Wisconsin

- The State of Wisconsin recommends testing children at risk around 12 months of age, and again at 24 months of age; a low blood lead level at 12 months does not indicate that there is no risk to the child, so a follow-up screening at 24 months is necessary.
- At these ages, children are becoming more mobile and their ability to access lead hazards and transfer lead dust particles to their mouths is increased.



The figure above shows that most Wisconsin children are tested only around 12 months of age

#### North Shore

- Similarly, in the North Shore communities in 2014, 309 children aged ~10 months to ~13 months old (to represent the 1-year mark) were tested for elevated blood lead levels, and only 251 children aged ~17 months old to ~27 months old (to represent the 2-year mark) were tested for elevated blood lead levels.

### Age of Housing

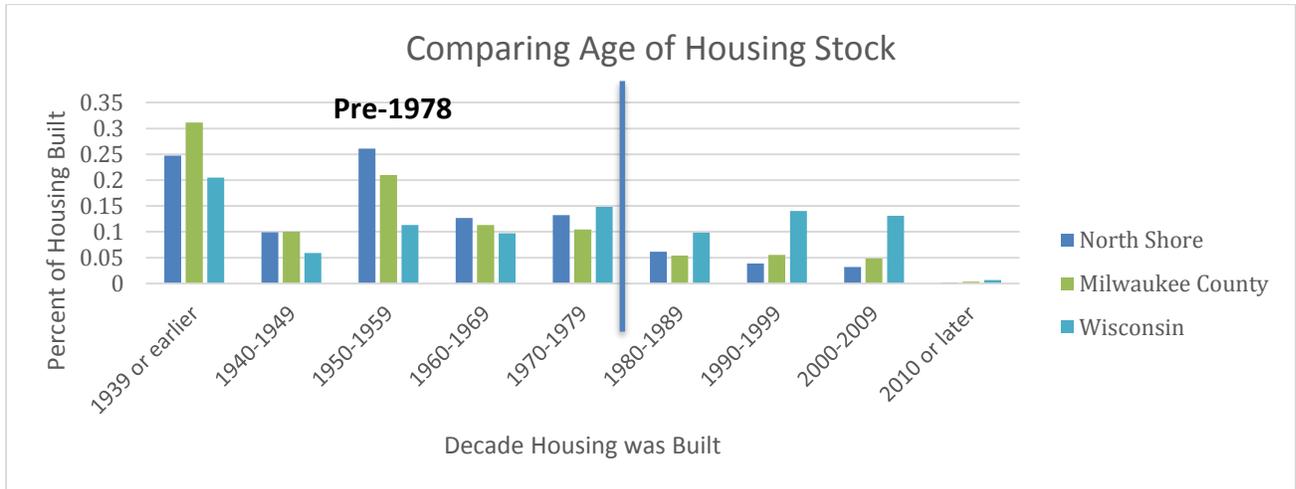
#### Wisconsin

- The state of Wisconsin considers older housing stock as housing built before the year 1950 because these homes are more likely to be deteriorating at a greater rate.
- A previous analysis found that 90% of children identified with lead poisoning in Wisconsin between 1996-2006 lived in housing built before 1950.

#### North Shore

- In the North Shore communities there are over 10,000 homes built before 1950 in our communities, and these homes make up 34.61% of the total housing stock. The North Shore communities and Milwaukee County communities are at a greater risk than Wisconsin as a whole.

The figure below shows that while North Shore and Milwaukee County housing was predominantly built in earlier decades of the 20<sup>th</sup> century, Wisconsin in comparison has more housing stock built in recent decades.



### Lead-Based Paint

- Another housing risk factor identified by the Centers for Disease Control (CDC) is housing that contains lead-based paint. Lead-based paint was banned in 1978, so all housing built before 1978 is likely to contain lead-based paint.
- In Wisconsin, 62.2% of housing was built 1979 or earlier. In the North Shore communities, 86.6% of housing was built 1979 or earlier. By looking at the figure once again, we can see that North Shore communities are at a greater risk when considering housing as a risk factor compared to the rest of the state.

### Family Income

#### Wisconsin

- A family with a child that receives Medicaid benefits or vouchers from WIC is considered low-income, and children from low-income families are at greater risk for elevated BLL because of fewer housing selections and poorly maintained housing
- There is a federal mandate that all children on Medicaid and WIC receive a blood lead test at 1-years-old and at 2-years-old, but Wisconsin is falling short.

#### North Shore

- Within the North Shore communities, 9.6% of our residents receive Medicaid health benefits. Although that may sound like a small percentage, our physicians and pediatricians also serve many community members from Milwaukee County; and in our county, 30.7% of our population receives Medicaid health benefits.
- Looking at a small sample of our pediatricians' offices in the North Shore the offices are falling short of testing all children on Medicaid at 1 and again at 2-years-old.

Below is a table showing data from 2015 on the number and percentage of children on Medicaid served by our sample of North Shore pediatricians that were tested.

Age	Total Seen	Tested in 2015	Percent Tested in 2015
1 Year	586	354	60.4%
2 Year	466	256	54.9%
3-5 Years, not previously tested	137	17	12.4%
<b>Total</b>	<b>1189</b>	<b>627</b>	<b>52.7%</b>

**The Importance of Testing Medicaid-Enrolled Children**

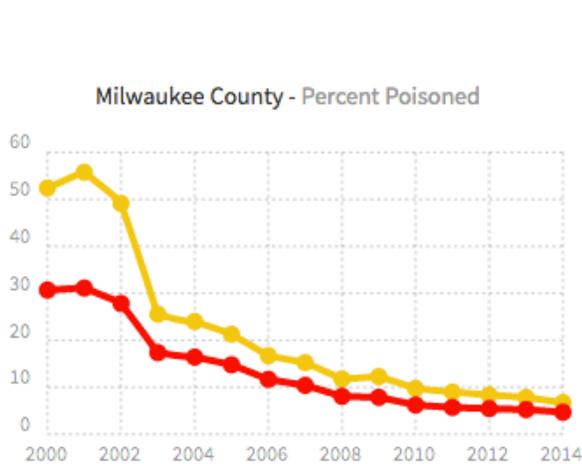
- Medicaid-enrolled children in Wisconsin are at a three-times greater risk of having an elevated blood lead level than children who are not on Medicaid.
- In 2014, 88% of children who had lead poisoning in Wisconsin were on Medicaid.

**Pockets of Risk**

**Wisconsin**

- Children statewide are at risk for lead poisoning, but significantly higher rates are seen in communities with a higher prevalence of older housing and other risk factors for childhood lead poisoning, like family income.

Below is a figure showing the decrease of the percentage of children who have been lead poisoned (elevated blood lead level (5-10µg/dL) ) from 2000-2014 for Wisconsin and Milwaukee County.



Wisconsin	
Milwaukee County	

In 2014, the state average percentage of children who were lead poisoned was 4.69% compared to the Milwaukee County average, which was 6.73%. Milwaukee County consistently has a higher percentage of children under 6 that are lead-poisoned compared to the entire state. It is important to focus lead testing awareness efforts in areas like Milwaukee County where risk for children is higher compared to other communities.

**North Shore**

- Within Milwaukee County, our North Shore communities can be considered as a pocket of risk because of our older housing stock and because our physicians and pediatricians are likely to serve Medicaid-enrolled children.
- In 2014, 75% of the census tracts in the North Shore communities had greater than the state average (4.69%) of children in their communities with elevated blood lead levels.