



Lead Contamination in Wisconsin

A report by the Sierra Club-John Muir Chapter

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Introduction

Wisconsin, with its many lakes, rivers, streams and wetlands, is a state defined by its water. However, Wisconsin's current water management system is failing to protect citizens across the state. Lead contamination from corroded water pipes and fixtures threatens the water supply and health of tens of thousands of Wisconsin residents.

Lead poisoning is especially damaging to children, as it can lead to reduced IQ and attention span, learning disabilities, development delays and a range of other permanent health and behavioral effects. Wisconsin needs a water management system that is fair, equitable and ensures clean and plentiful water to all residents.

What is Lead Poisoning?

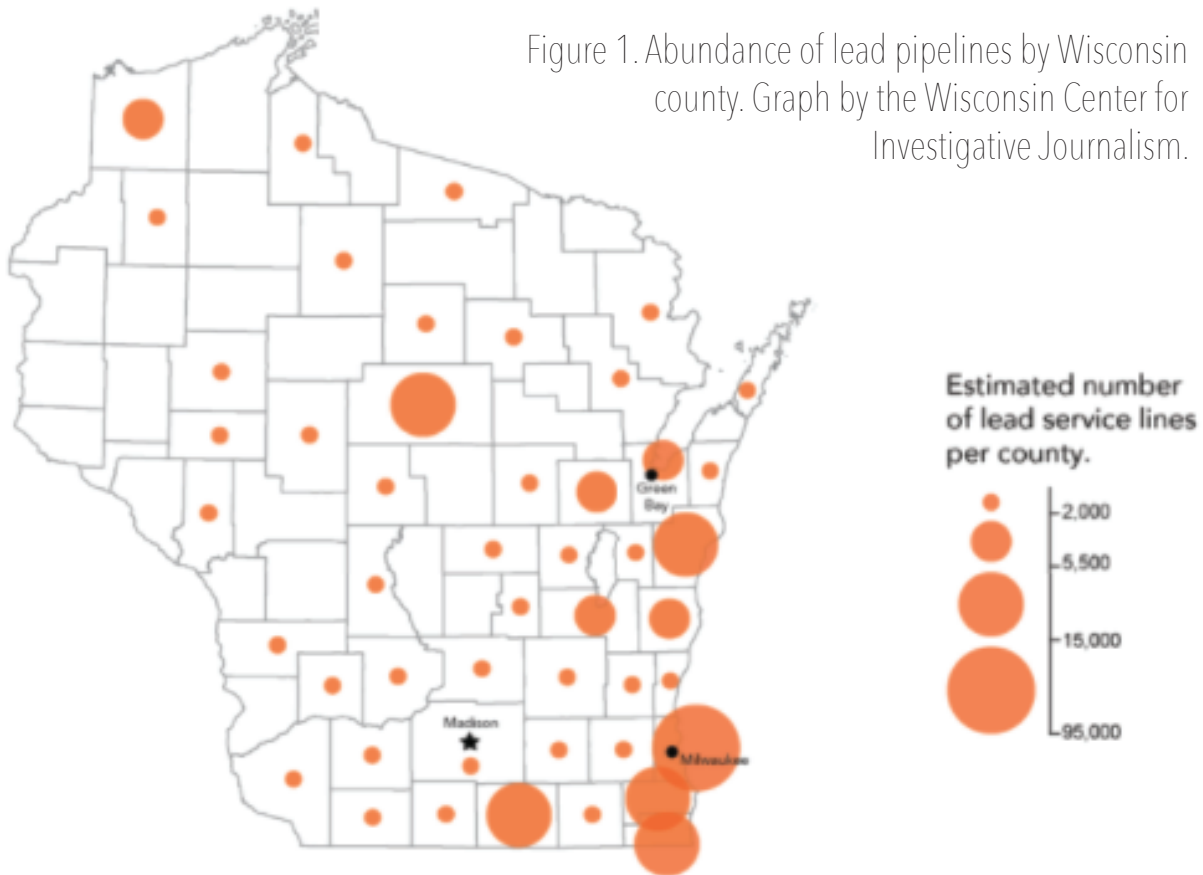
Many Wisconsinites suffer or have suffered from exposure to lead, leading to elevated levels of lead in the body and a condition known as lead poisoning. This can occur after drinking water delivered through corroded lead pipes or exposure to lead paint.

The EPA and DNR have established an 'action level' of 15 micrograms per liter of lead in drinking water. Once this threshold is reached, the water source is considered contaminated. Even though an action level is established, the Centers for Disease Control and Prevention has reported that there is no safe lead blood level in children.² Lead poisoning in adults and children is monitored through blood testing. If a child's test results show five micrograms per deciliter or more, they have lead poisoning.

Lead in Wisconsin

Before its ban in 1896, lead was used in the construction of most household plumbing systems in Wisconsin. Although the ban was put in place over 100 years ago, lead contamination is still a statewide issue. Greatly elevated levels of lead of at least 100 parts per billion – or more than six times the federal safety level – have been detected in public water systems in 24 of 72 Wisconsin counties.⁹ From 2012 to 2015, 81 Wisconsin water systems tested above the EPA action level at least once, meaning more than 10 percent of the locations tested during a given period exceeded the EPA limit.⁸

Madison has spent more than \$15 million since 2001 to replace all 8,000 lead lines between water mains and homes, but this issue is not isolated to Madison.⁴ The highest lead poisoning rates have been found in the cities of Menasha, Milwaukee, Racine, and Watertown and the six counties of Buffalo, Green Lake, Pepin, Richland, Rock, and Sheboygan.³ In Milwaukee alone there are 70,000 lead service lines.⁶ Compare this to Philadelphia, a city with almost twice the population of Milwaukee and 60,000 lead service lines.¹²



Those Most at Risk: Children

Communities with the highest prevalence rates for lead poisoning in tested children under age 6, 2014

Local health departments	Total tested	Children with elevated blood lead levels	Percentage of tested children with elevated blood lead levels
City of Milwaukee	26,097	2,244	8.6%
City of Watertown	535	45	8.4%
Buffalo County	178	13	7.3%
Sheboygan County	1,215	76	6.3%
City of Racine	2,467	153	6.2%
Rock County	2,354	142	6.0%
Green Lake County	250	14	5.6%
Pepin County	90	5	5.6%
City of Menasha	254	14	5.5%
Richland County	175	9	5.1%
Statewide	87,987	3,922	4.5%

Levels of 5 micrograms per deciliter and above are considered elevated

Source: 2014 Report on Childhood Lead Poisoning in Wisconsin, Wisconsin Department of Health Services

Credit: Abigail Becker/Wisconsin Center for Investigative Journalism

At least 176,000 Wisconsin homes and businesses receive water from lead service lines, including many daycare facilities and schools.⁹ According to a 2008 study by the Wisconsin Department of Health and Family Services, 90 percent of children with lead poisoning from 1996 through 2006 were first identified with lead exposure while living in housing built before 1950.¹⁰ Thousands of children in Wisconsin have lead poisoning – about 4.5 percent of children tested with elevated levels, compared with 4.9 percent in Flint, Michigan.¹ Studies of school children in Milwaukee and Racine found that those with higher blood concentration levels of lead had significantly lower academic performance, high suspension rates, and poorer overall health than their peers.⁵ In fact, lead poisoning causes almost 10 percent of all intellectual disabilities of otherwise unknown cause.⁷

While children of all backgrounds suffer from lead poisoning in Wisconsin, contamination disproportionately impacts children from low-income families and children of color. In 2014, a study found that 88 percent of all Wisconsin children testing positive for lead poisoning were enrolled in Medicaid.³ Furthermore, while white children make up the highest proportion of children tested in Wisconsin, rates of lead poisoning are highest among black children, followed by Hispanic and Asian children.³

Solutions

The presence of lead in drinking water presents a critical threat to Wisconsin's people and economy. Based on the 2010 population of 540,000 Wisconsin children aged 0-6, a total of \$28 billion in costs and earnings would be saved if no children were exposed to lead.¹¹ If Wisconsin is to safeguard drinking water of all citizens and prevent public health and other society costs in the years to come a strategy is needed that includes:

- Widespread testing of all children in daycares and schools to understand the full extent of lead poisoning throughout the state.
- Annual public education to inform consumers when drinking water exceeds the action level for lead and ways to take preventative action.
- The requirement for all landlords to test water for lead and disclose results to prospective tenants if lead is detected, as proposed in Senate Bill 41
- The ability for water utilities to provide assistance to customers in replacing lead service lines if local ordinance allows them to do so, as proposed in Senate Bill 48.

Call to Action

Contact state representative and demand lead testing.
This website matches zip codes to congressional districts:
house.gov/representatives/find/

Test water for lead. Find out more here:
dnr.wi.gov/topic/drinkingwater/lead.html

Join one of the Sierra Club's Water Teams. For more information, or to join a team, contact:
john.muir.chapter@sierraclub.org or (608) 256-0565

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