

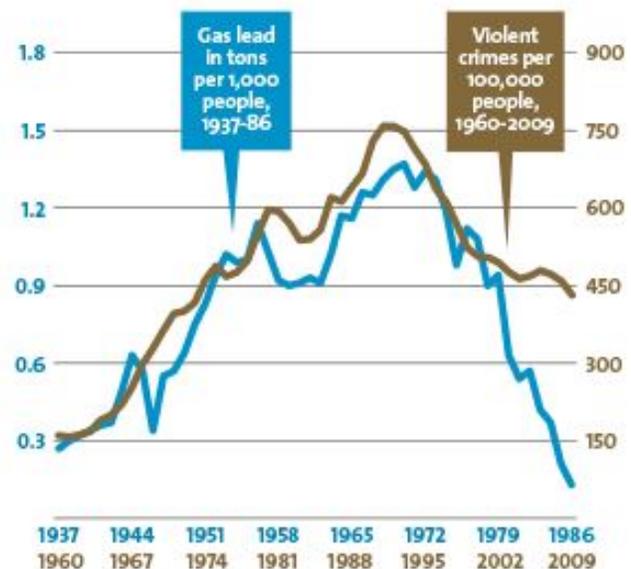
Lead and Wisconsin's Children

The harmful effects of lead poisoning are well-documented, particularly with the news coverage surrounding Flint, Michigan. Lead poisoning harms the development of the brain and nervous system and is therefore most detrimental to children. These developmental impacts result in, among other things, reduced attention span and reading and learning disabilities.

Lead poisoning in children is correlated with higher high school dropout rates and delinquent behavior by juveniles, as discussed in a [2014 report by the Wisconsin Department of Human Services](#). The correlation between exposure to lead and violent crime is suggested by this graph from [an article in Mother Jones magazine](#). It suggests that the level of lead exposure in childhood is highly correlated with the level of violent crime in adulthood.

That being said, we must acknowledge that intellectual disabilities are not the problem; children being systemically poisoned is the problem. More must be done to ensure all institutions, such as schools, accept and promote the well-being of everyone, including those with intellectual disabilities. However, significant resources are spent on ameliorating the effects of poisoning – in our schools, in our courts, and in our communities. It is clear that we should go “upstream” and prevent children from being poisoned in the first place.

Gasoline lead and violent crime



WISCONSIN'S LEAD PROBLEM

Testing

The Center for Disease Control (CDC) classifies a blood lead level of 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$) as poisoned, a level that replaces an older $10 \mu\text{g}/\text{dL}$ standard. The $5 \mu\text{g}/\text{dL}$ standard is also used by the Wisconsin Department of Human Services to signify elevated levels of lead in the blood stream.

In 2015, as reported by the Wisconsin Department of Human Services, 4.6% of tested children under 6-years-old statewide had elevated blood lead levels. This is a continued decrease from 6.4% in 2013 and 7.1% in 2012. However, it is **higher than the national average** and nearly as high as [Flint's rate of 4.9%](#) in 2015. Additionally, there are disparities based on region and ethnicity. Milwaukee has a much higher rate of lead poisoning than Flint, with 8.6% of tested children less than 6 years old having elevated blood lead levels. Other communities also have higher rates of lead poisoning than Flint, including places like Watertown, Buffalo County, and Sheboygan County all reporting rates ranging from [6.2% to 8.4%](#). There is also a racial component to this challenge. Over 10% of tested African American children less than 6-years-old in Wisconsin have elevated blood lead levels.

Sources of Poisoning

There are many sources of lead poisoning that can affect children. One major factor in Wisconsin is old housing stock. Lead was banned from paint in 1978, but there is still a lot of lead based paint in Wisconsin homes, and this lead based paint decays and [creates dust with lead that children can inhale](#). Wisconsin has a higher than average number of old housing units, [with many homes built in the 1800's](#).

Another major factor, brought to the fore by Flint, Michigan, is water pipes lined with lead. Wisconsin has at least 176,000 lead service lines that carry water to homes and businesses, which can carry lead to drinking water. [The counties with the highest number of lead service lines](#) are Milwaukee, Racine, Manitowoc, Kenosha, and Marathon.

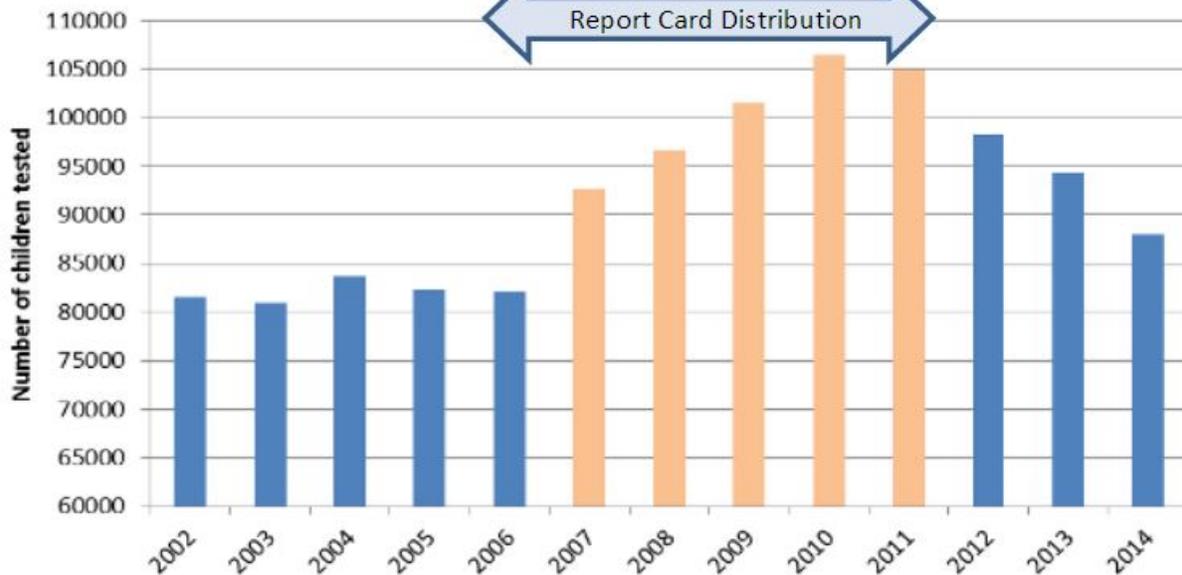
SOLUTIONS

Blood lead poisoning is a preventable problem—the solutions are achievable and the benefits of investing in prevention are well-known.

Accountability Improves Outcomes

From 2007 to 2011, the Wisconsin Childhood Lead Poisoning Prevention Program (WCLPPP) within the Wisconsin Department of Human Services partnered with the Wisconsin Medicaid program to provide Medicaid providers blood lead testing reports, allowing individual providers to track their testing performance. The number of children tested jumped from less than 85,000 in 2006 to about 105,000 in 2011. After the reports were discontinued due to loss of federal grant funding, children tested dropped to under 90,000 in 2014. This means, in 2014, despite requirement to test all children receiving Medicaid benefits, [only 62% of 1-year-olds and 48% of 2-year-olds were tested](#). The [chart below from the Wisconsin Department of Human Services](#) documents this change.

Number of Children <6 Years of Age Tested in Wisconsin by Year, 2002-2014



Source: 2014 Report on Childhood Lead Poisoning in Wisconsin by the Wisconsin Department of Human Services

Reinstituting this initiative can increase the number of children tested, giving them better access to necessary care and providing better data to help policymakers target solutions. In addition, expanding testing to cover all housing older than 1950 can help properly target vulnerable populations throughout the state.

Prevention

The most impactful way to reduce blood lead poisoning levels is to prevent it from happening. The state should consider offering low-or no-interest loans to homeowners, apartment owners, schools, and others to assist them in funding amelioration efforts for their property. This can help with lead in old paint and privately-owned water pipes. Currently, the state-run [Injured Patients and Families Compensation Fund has a surplus](#) of \$783 million, \$406 million over the recommended amount. Although there are current limitations on how these funds can be used, that state should investigate using some of this fund as a resource in creating a pilot loan program.

The [Wisconsin Department of Natural Resources Lead Service Line Replacement Funding program](#), that makes \$11.8 million available to municipalities to replace lead service lines, was implemented this year with the intention of being renewed next year. This program should be expanded to achieve the eventual goal of replacing all 176,000 lead service lines. The estimate to replace Milwaukee's 70,000 lines is between \$511 million and \$756 million. If the cost of replacing Milwaukee's lines is comparable to other lines, the total cost could be between \$1.3 billion and \$1.9 billion.

Although these prevention efforts come at a significant cost, the savings are immense. The [Wisconsin Department of Human Services estimates](#) if blood lead poisoning was eliminated, \$7 billion in costs would be saved (in medical care, special education, crime and juvenile delinquency, etc.). They also estimate a \$21 billion increase in new earnings as the result of increased high-school graduation and lifetime ability to earn.

Recommendations

In addition to the recommendations above, a number of ideas have been put forth by advocates and legislators to address lead exposure in children:

1. Provide funding to restore accountability initiatives to increase the number of children test for lead, particularly children at high risk of exposure;
2. Formally adopt the CDC guidelines related to blood poisoning level and ensure that appropriate public health responses are put in place to assess and ameliorate the source of exposure;
3. Increase support for and collaboration with public health departments and community organizations, such as Milwaukee's Sixteenth Street Community Health Center's Community Lead Outreach Project, to work on educating the community on the negative impacts of lead and on lead abatement strategies.

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