City of Milwaukee Health Department

Targeting Resources to Reduce Childhood Lead Exposure in Milwaukee

Data Day
May 30, 2018
Scope of the problem:

Each year, over **24,000** children under the age of 6 are tested for lead poisoning.

In 2004, at least **8,385** children under the age of 6 had elevated blood lead levels \((5\text{ug/dL})\).

In 2016, at least **2,851** children under the age of 6 had elevated blood lead levels \((5\text{ug/dL})\).
Targeting limited resources is essential.

- The cost of lead poisoning is high on children.
- The burden of poisoning is geographically concentrated.
- All sources of environmental lead exposure are important, but national data show that some sources contribute to childhood lead poisoning more than others.
The cost of lead poisoning is high on children.
Children are most vulnerable to lead exposure.

- Low body weight
- Absorb 4-5 times more lead than adults
- Brains are still developing
- Crawling and hand-to-mouth behaviors (toddlers)
Lead poisoning leads to irreversible health outcomes.

- Chronic diseases
- Intellectual and academic abilities
- Neurobehavioral disorders (ADHD)
- Antisocial behaviors (conduct disorder/delinquency)
The burden of lead poisoning is geographically concentrated.
Burden of Lead Poisoning in the City of Milwaukee
Average Home Value
All sources of environmental lead exposure are important, but some contribute to childhood lead poisoning more than others.
The presence of lead-based paint may not result in lead poisoning.
District 14
10,846 buildings (1-3 units) built before 1978
2016 Prevalence: 6.9%

District 7
10,899 buildings (1-3 units) built before 1978
2016 Prevalence: 17.7%

2016 City Prevalence: 11.6%
The presence of lead service lines may not result in lead poisoning.
City of Milwaukee Blood Lead Level Prevalence for Children Less Than 6 Years Old

Percent of Tested Children with Lead Levels

- Orange line: Percent of Children >=5 ug/dL
- Gray line: Percent of Children >=10 ug/dL

Year:
- 1997
- 1999
- 2001
- 2003
- 2005
- 2007
- 2009
- 2011
- 2013
- 2015

Percent of Children with Lead Levels:
- 31.9%
- 34.7%
- 11.6%
- 3.3%
2004 Lead Poisoning

Concentration of elevated blood lead levels (>5 ug/dL) in children under the age of 6 in 2004

- 3 under 3 testing penetration: 53%
- Total children under 6 tested: 24,142
- Prevalence: 34.7% (8,385 children)
Properties made lead paint-safe since 2004

Concentration of elevated blood lead levels in children under the age of 6 in 2004 and properties made lead-safe through city programming

• Most of the City’s work was concentrated where the greatest need was located
2016 Lead Poisoning

Concentration of elevated blood lead levels (>5 ug/dL) in children under the age of 6 in 2016

- 3 under 3 testing penetration: 64.7%
- Total children under 6 test: 24,478
- Prevalence: 11.6% (2,851 children)
What we know: (2004-2016)

- MHD’s aggressive testing recommendations have been consistent since before 2000.
- No major federal lead-related legislation.
- Water quality and treatment practices have been consistent.
- City’s primary intervention was around lead-based paint in the highest risk areas.
Targeting limited resources is effective.

2004 Prevalence: 34.7%

2016 Prevalence: 11.6%