

# PREVENTING LEAD POISONING IN DANE COUNTY

2023



## There is no safe level of lead, especially for children

While lead can hurt anyone, the health effects of lead exposure are [particularly damaging for young children](#).

Children can be exposed to lead through:

- **Paint.** House paint that was made before 1978 had lead in it. If a child eats paint chips or breathe in paint dust from sanding or construction, they can be exposed. This is the most common route of childhood lead exposure.
- **Soil.** Lead particles from exterior paint, leaded gasoline, aviation fuel and other sources can last in soil for years. Children can be exposed by eating or playing in soil with lead.
- **Water.** Some older water pipes, plumbing, and faucets may contain lead. The City of Madison has replaced all known lead service pipes, but pipes in your home could still have lead, and some outlying areas in the county could still have some lead service lines.
- **Toys and other consumer products.** [Lead paint on toys is banned in the U.S.](#), but is still widely used in some other countries. Older or antique toys, collectibles, and other items may also contain lead.
- **Other sources.** Imported foods, spices and medicines, certain jobs and hobbies, and other sources could contribute to a child's lead level.

## Childhood lead testing in Dane County

We [recommend lead testing](#) for *all* Dane County children, specifically:

- Blood lead testing for all children at age 1 year and again at 2 years of age.
- Testing for any children between the ages of 3 and 5 years of age without a previous lead test.

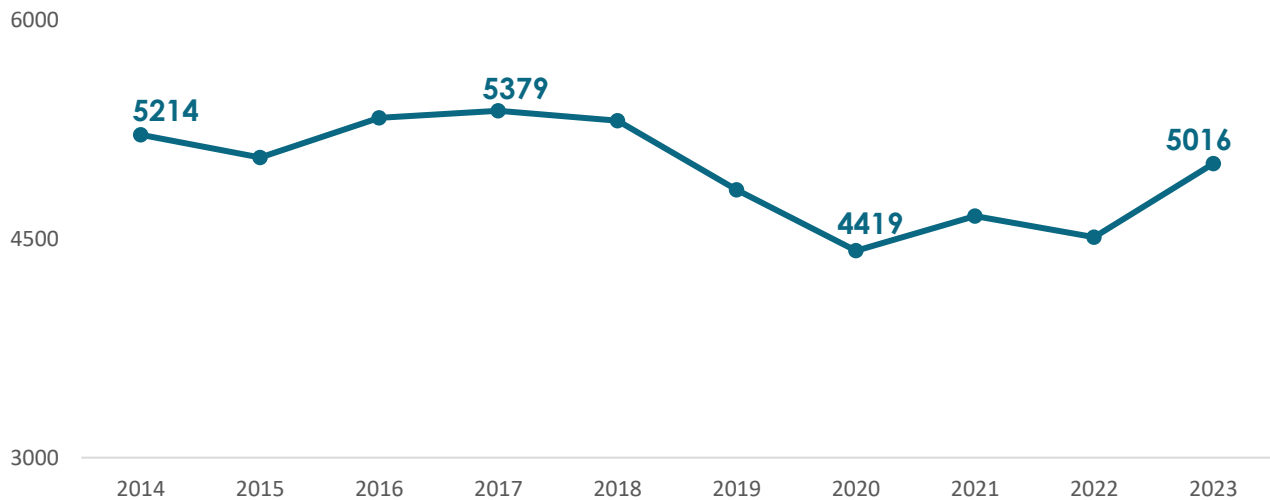
In addition, all children under 17 years of age can be tested when:

- Parent/guardian is concerned about possible lead exposure or asks for their child to be tested.
- A health care provider becomes aware of changes in lead exposure risk.
- The child is a newly arrived refugee. In this case, the child should be tested upon arrival and 3 to 6 months after the initial blood test.

When children are tested for lead poisoning, the results of the blood test are reported to us. We use this information to work with families to address lead poisoning, as well as monitor community trends in blood lead levels.

An average of 4974 children under 6 years of age were tested per year for lead in Dane County over the past decade. The number of children tested started to trend downward in 2018 but may have started to rebound toward pre-pandemic testing levels.

**In the past decade, the number of children < 6 years tested for blood lead levels in Dane County has remained steady overall, trending downward starting in 2018 and rebounding in 2023.**



**Data notes:**

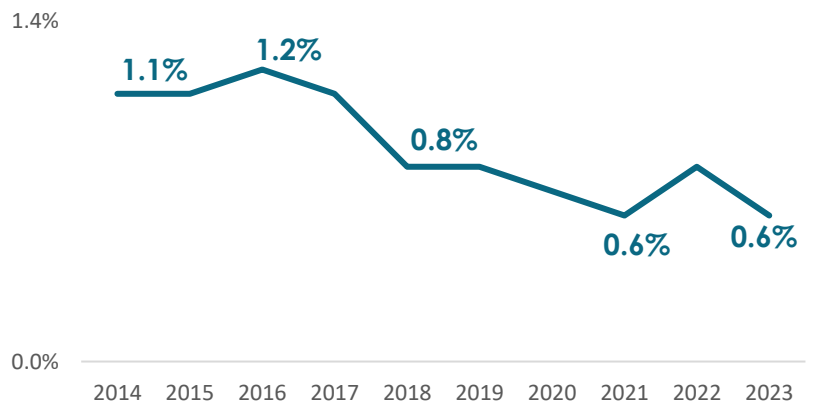
The recommendation to test **all** children for blood lead levels was enacted on January 1, 2024. Thus, these testing trends describe those meeting the previous recommendation of one or more of the following criteria: 1) Does the child live in or visit a house built before 1950 (including childcare centers and homes of friends or relatives)? 2) Does the child live in or visit a house or building built before 1978 that's recently undergone or currently undergoing renovations (including childcare centers and homes of friends or relatives)? 3) Does the child have a sibling or playmate with lead poisoning? 4) Is the child enrolled in Medicaid or WIC?

Data on race and ethnicity of children tested is variable—in 2022, over half of reports had an unknown race listed; this trend improved in 2023 but nearly a third of the data continued to have this limitation. It is important to document race and ethnicity so that racial disparities in testing can be monitored and addressed. Missing race data are partly related to a reporting error. The state health department is actively working on the issue to improve the reporting of race and ethnicity for children tested for lead poisoning.

## Childhood lead poisoning has trended downward, but work remains

- Over the past decade, lead poisoning has decreased among children tested in Dane County.
- In 2023, 33 children under age 6 had a blood lead level greater than or equal to 5 micrograms per deciliter of blood (mcg/dL), which is the level at which we follow up. A total of 5,016 individual children in this age group were tested in 2023.
- In 2014, 1.1% of children who were tested had lead greater than 5 mcg/dL; in 2023, it was 0.6%.
- Despite this progress, children with reported blood lead levels over 10 mcg/dL have not decreased and has stayed consistent at an average of 10 children per year.

**Reported elevated childhood lead levels (≥ 5 ug/dL) has trended downward over the past decade, with less progress over the past five years\***



Data source: Wisconsin Department of Health Services  
 \*2023 data are preliminary.

## Number of children tested and found to have elevated blood lead levels, Dane County, 2014 - 2023

Year	Number of children under age 6 tested	Number of children tested with blood lead levels >5mcg/dL (blood poisoning)	Percentage of children tested with lead poisoning	Number of children under age 6 with a blood lead level 3.5-4.9 mcg/dL	Total number of children tested with lead levels above 3.5mcg/dL
2014	5214	59	1.1	145	204
2015	5059	55	1.1	98	153
2016	5331	64	1.2	132	196
2017	5379	58	1.1	70	128
2018	5310	40	0.8	60	100
2019	4838	39	0.8	48	87
2020	4419	29	0.7	40	69
2021	4658	28	0.6	41	69
2022	4512	38	0.8	42	80
2023*	5016	32	0.6	39	71

Data source: Wisconsin Department of Health Services

\*2023 data are preliminary

## We prevent and respond to lead exposure in young children

### 2023 staff work

In 2023, we worked with 44 families that had children with lead levels 5 mcg/dL or higher. Some of these families had elevated lead levels in previous years and needed continued follow up. We also inspected 22 homes or childcare sites (16 home visits and 6 risk assessments) and sent 348 prevention letters because of elevated lead levels. While some intervention services are brief, others can be extensive—home inspections alone may take 8-10 hours.



### Prevention Services

**Who:** Children under 6 years old, with a detectable lead result below 5 mcg/dL, and who live in a zip code with a large number of houses built before 1950.

**What we do:** We send a letter with information about preventing lead. We also provide contact information for our staff if they would like to ask any questions.



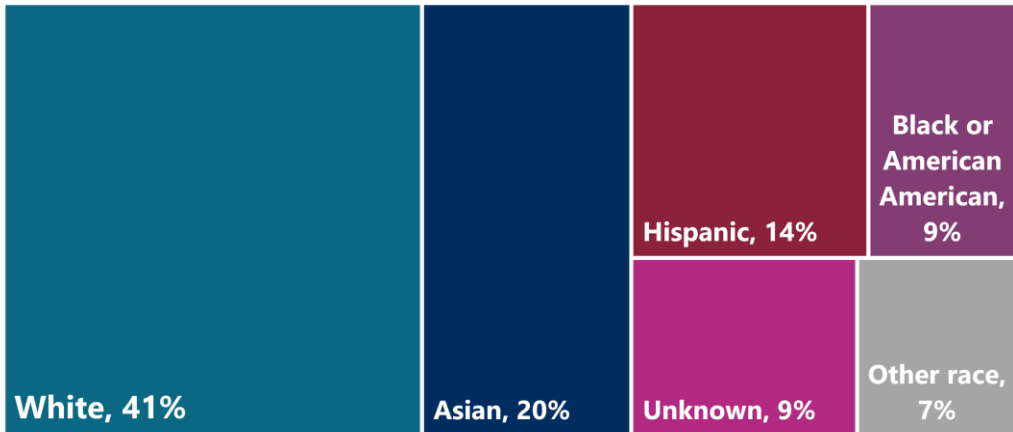
### Case Management

**Who:** Children under 6 years old with a lead result of 5 mcg/dL or higher.

**What we do:** A public health nurse follows up with the family to provide support. This may include providing education about lead, healthy nutrition, assistance in finding medical care, lead testing or community resources such as WIC, Birth to 3 or Early Childhood Education. Our nurse is also the link between the Environmental Health team and local medical providers. We follow families until the child turns 6 or their lead level falls below

5 mcg/dL. For over 10 years, we have provided a more proactive lead follow up for children than state requirements. Wisconsin requires case management for children with lead level of 20 mcg/dL or more.

### 2023 Lead Case Management by Race/ Ethnicity



Note: due to testing data collection limitations described on page 2, we can't conclude to what extent these children represent the underlying population in need of services.



### Home inspections

**Who:** Offered to families of all children under 6 years old with a lead result of 5 mcg/dL or higher. This service is strongly encouraged for families of a child under 6 with a lead result of 10 mcg/dL or higher and required for those with lead result of 20 mcg/dL or more.

**What we do:** A Certified Risk Assessor visits the family's home and conducts a risk assessment to determine sources of lead exposure. A full risk assessment includes testing surfaces with dust wipes and using a machine that can detect lead. Orders are issued to fix lead hazards, and [help is available](#) for income-eligible families and pregnant people.

### Case management peaked in 2017, when testing also peaked.

