

### **Why are children at a higher risk of lead poisoning?**

Most children are exposed to lead in their homes between ages 1 and 3. Exposure is often through chips and dust from lead paint. These particles contaminate household surfaces, as well as toys, pacifiers, and other items children put into their mouths. The brain is vulnerable as a child grows, and in this period of rapid development, exposure to lead interrupts critical functions.

### **Who should be tested?**

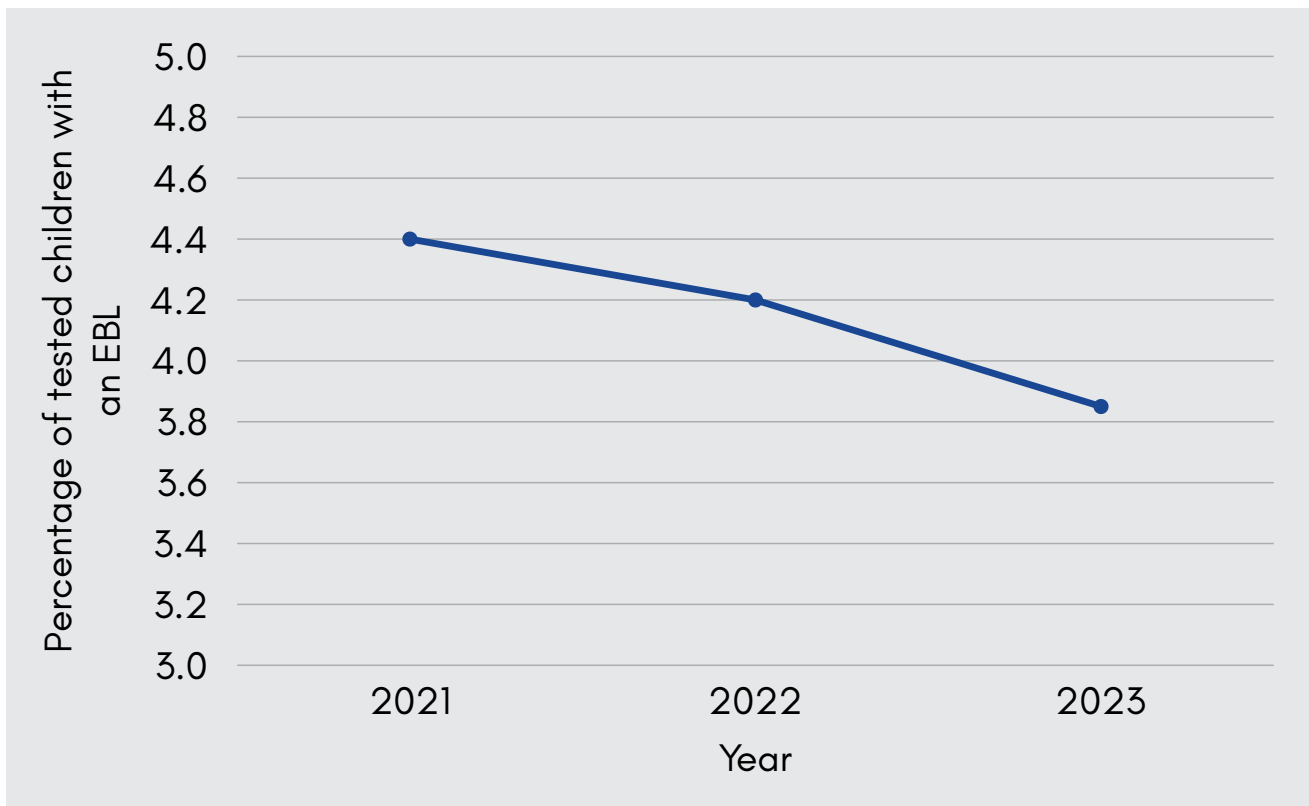
According to Ohio law, children under 6 must be tested for lead exposure if they meet certain criteria, such as being insured by Medicaid or living in a high-risk zip code. Tests are offered at the Cuyahoga County Board of Health and may be available at pediatrician offices. [Click here for a full list of blood lead testing requirements and high-risk ZIP codes from the Ohio Department of Health.](#)

### **What is considered an elevated blood lead level (EBL)?**

According to the Centers for Disease Control and Prevention, a blood lead level of  $\geq 3.5$  micrograms per deciliter (ug/dL) is considered elevated. An elevated blood lead level may prompt additional testing and environmental assessment.

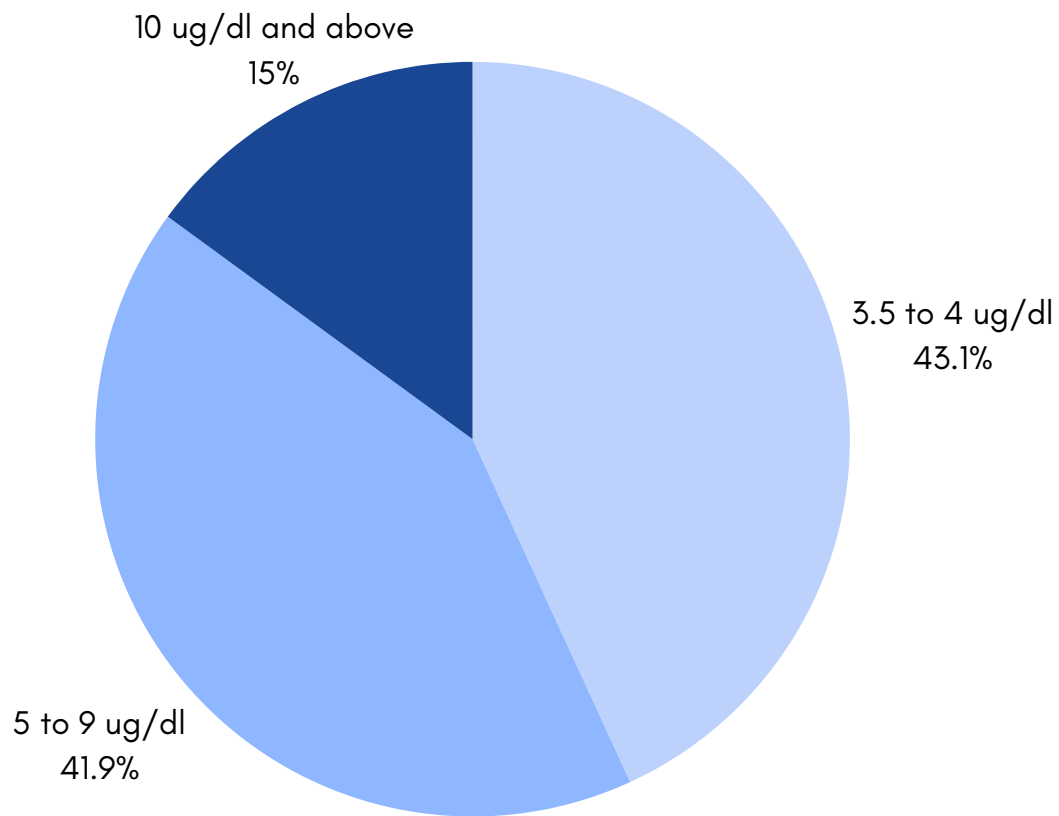


### Prevalence of EBL among tested children in Cuyahoga County Jurisdiction, 2023



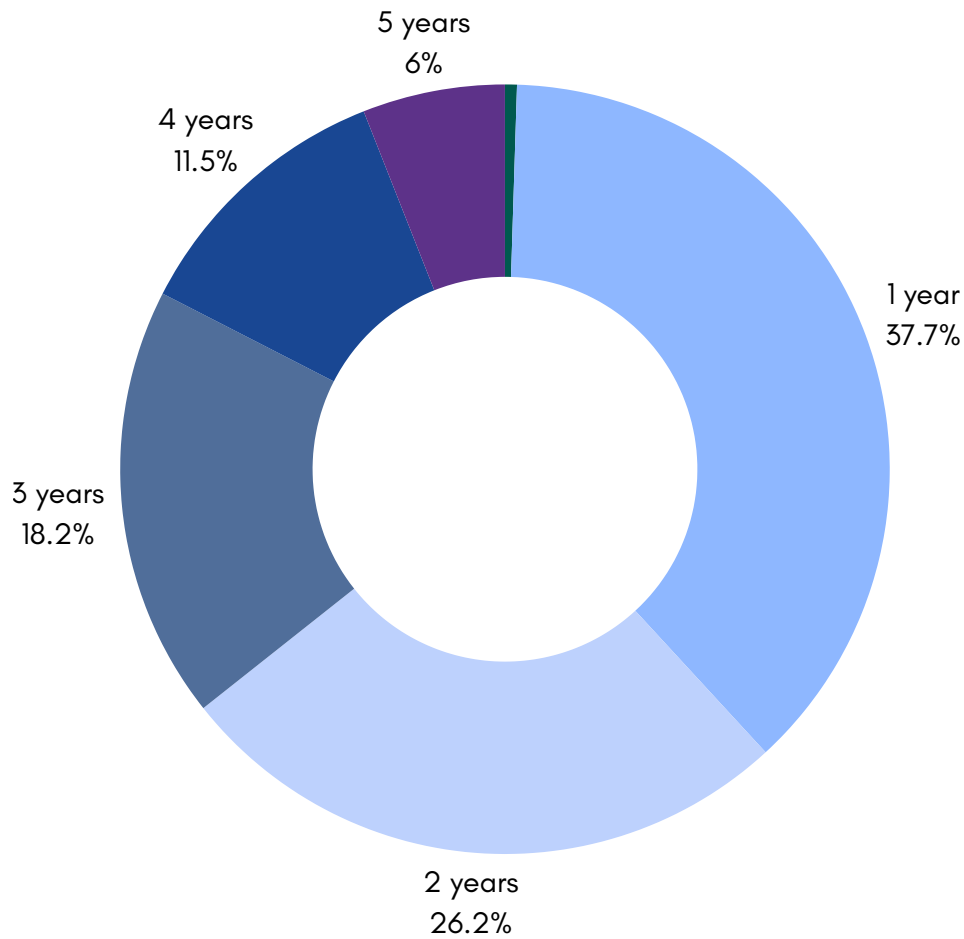
**Above:** The prevalence of elevated blood lead level in Cuyahoga County has been decreasing since 2021. Among children under age 6 who were tested, about 3.9% had an elevated blood lead level (EBL).

### Blood lead content for children with EBL in Cuyahoga County Jurisdiction, 2023



**Above:** Among children with an EBL in Cuyahoga County, most had blood lead content between 3.5 and 4ug/dL. Over 10% of these children had a blood lead level of 10ug/dL or above.

### Age of children with EBL in Cuyahoga County Jurisdiction, 2023



**Above:** In Cuyahoga County, most children with an EBL were 1 or 2 years old. Children are required to be tested at age 1 and 2 if they are at high risk of exposure, and they may be tested until age 6 if not tested previously.

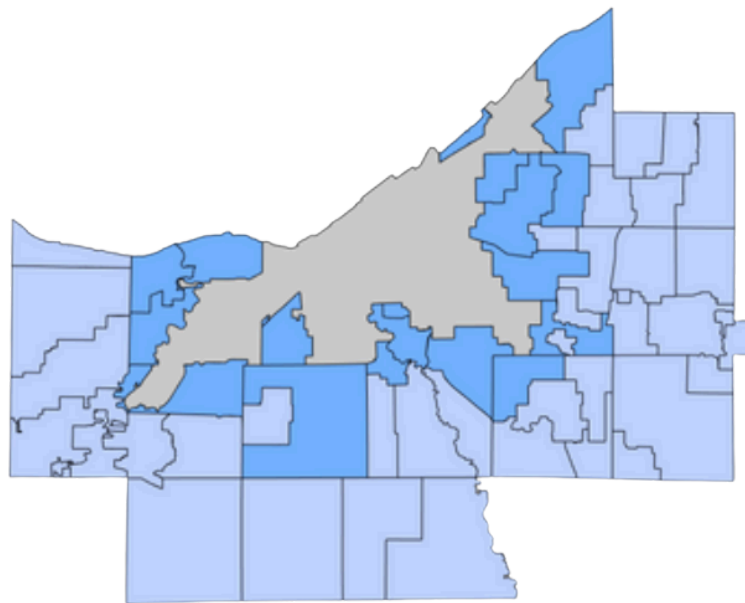
## Exposure is often clustered in geographic areas.

The most significant risk factor for lead exposure is housing built before 1978. Old paint is the primary source of lead in children, who are typically exposed by ingesting paint chips and dust. For this reason, living in an older home that is poorly maintained is a major concern.

Two-thirds of homes in Cuyahoga County suburbs were built before 1970 and likely used lead paint. In first ring communities - those that share a border with the city of Cleveland - this number jumps to over 80%.

In particular, lead exposure is often clustered in areas of historical disinvestment, where discriminatory housing practices and segregation have persistent effects.

Outside of Cleveland, over 85% of children in Cuyahoga County with an elevated blood lead level live in first ring suburbs. In 2023, communities with the highest counts of elevated blood lead levels were Cleveland Heights, East Cleveland, Garfield Heights, Euclid, and Lakewood.



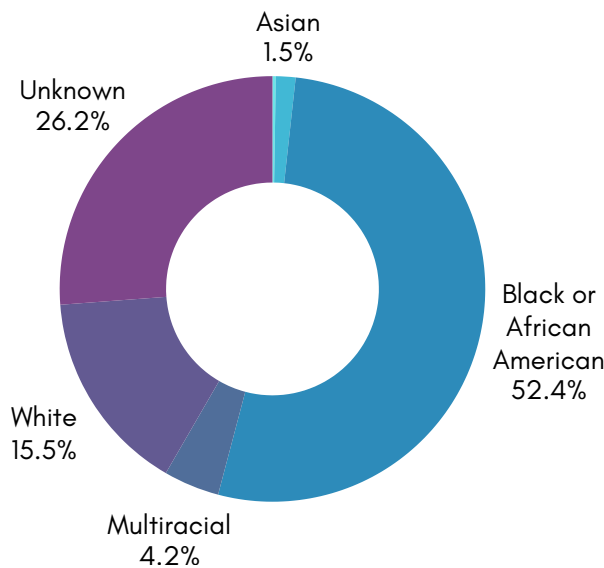
**Above:** First ring suburbs (dark blue) share a border with the city of Cleveland.

### Black and African American children are more often exposed to lead.

In 2023, over 50% of children with an elevated blood lead level were Black or African American. Areas of Cleveland and Cuyahoga County that were historically subject to racist housing policies are still home to mostly Black residents today. These areas are also associated with higher poverty rates and additional environmental health concerns.

Some refugee and migrant children may also have an increased risk of lead exposure. This is due to a number of factors, including exposure in their country of origin; cultural goods that may be contaminated, such as food and candy; and jewelry, cosmetics, and other household products that may contain lead.

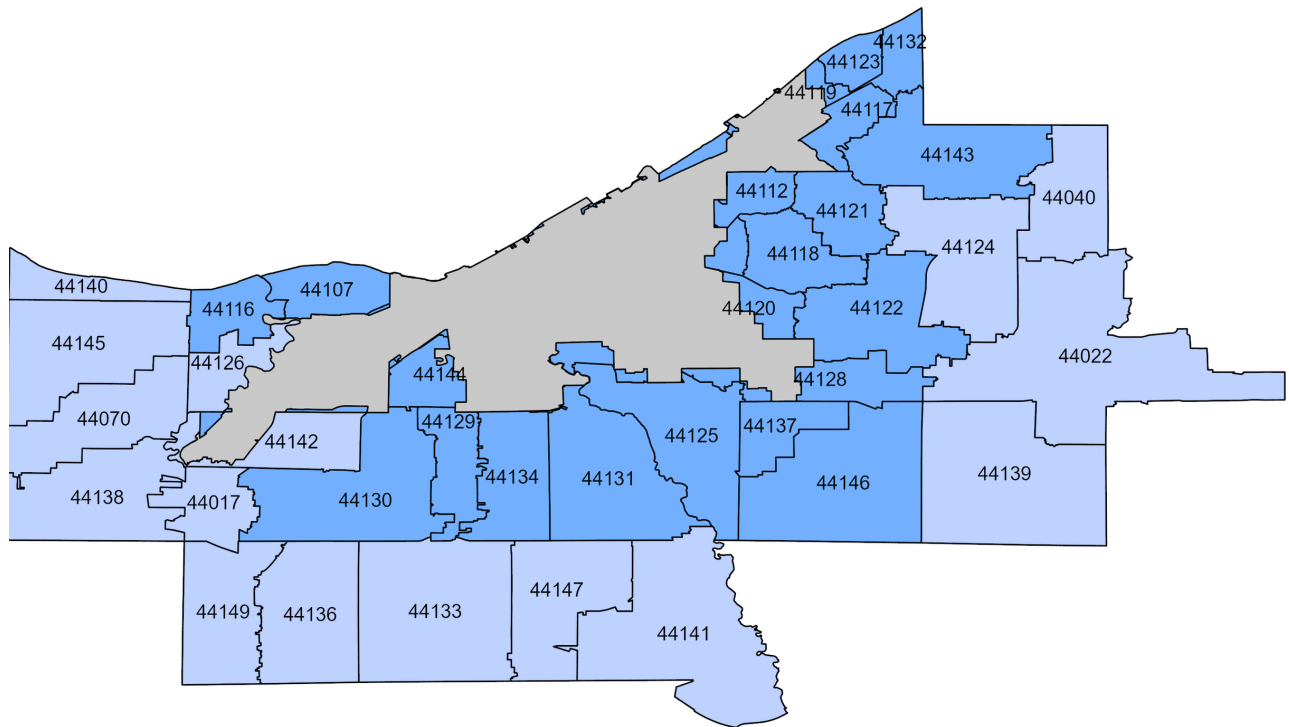
Percentage of Children with EBLs in Cuyahoga County Jurisdiction by Race, 2023



**Above:** There are significant racial disparities among children with elevated blood lead levels. Given the large proportion of missing data on self-reported race (26.2% Unknown), these figures are likely underestimated.

### Testing for lead is crucial, especially for children in high-risk areas.

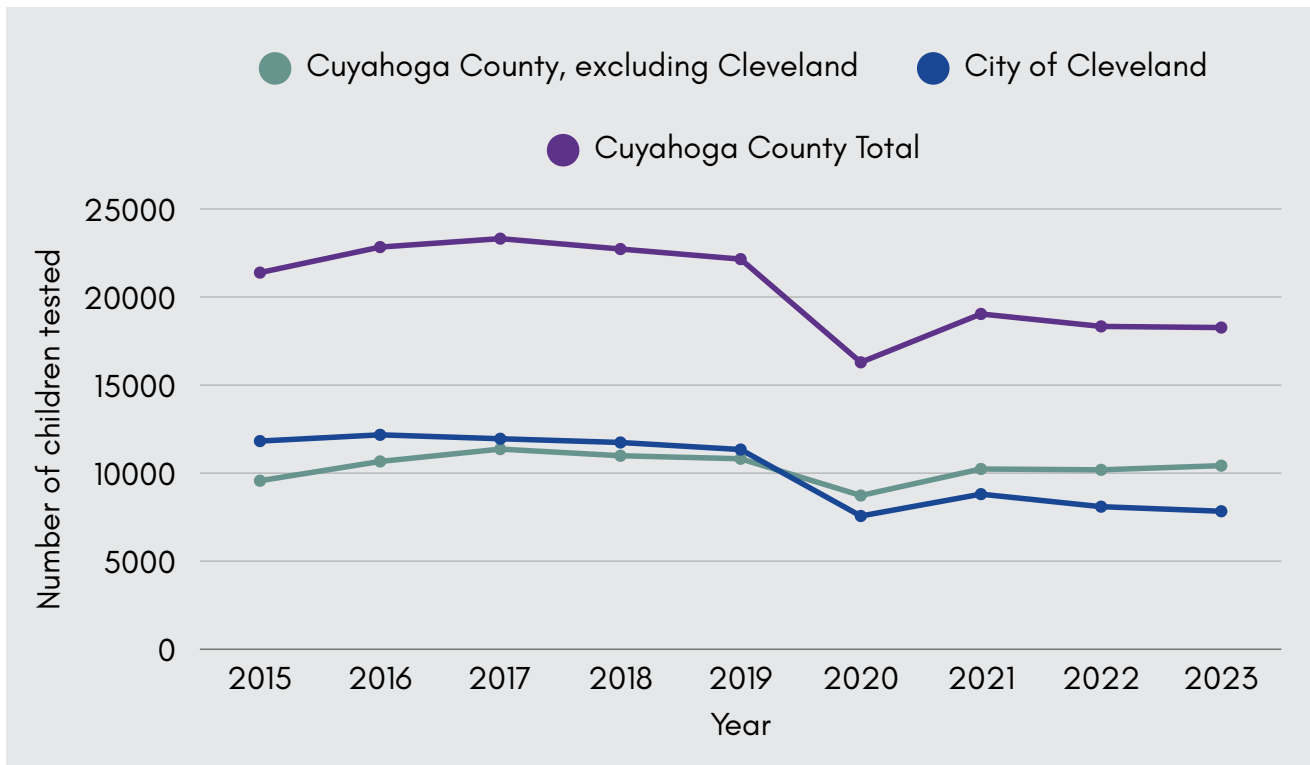
In high-risk zip codes, all children under 6 years of age are required to be tested for lead exposure. These zip codes are largely located in the city of Cleveland and first ring suburbs. However, less than 25% of children in first ring suburbs were tested in 2023. Zip codes outside the city of Cleveland with the highest EBL counts were 44112, 44118, 44125, 44107, and 44121.



**Above:** High-risk zip codes, as determined by the Ohio Department of Health, are depicted in the dark blue area of the map. The gray area indicates the City of Cleveland.

### Testing for lead is crucial, especially for children in high-risk areas.

Children tested for lead exposure in Cleveland and Cuyahoga County, 2015-2023



**Above:** In 2020, Cuyahoga County saw a sharp decline in lead testing for children under 6 years of age. The City of Cleveland and the surrounding area have not yet returned to pre-pandemic testing rates.

## **Lead exposure has lasting consequences for children and communities.**

Even small amounts of lead in the blood have long-term behavioral and physical consequences. These include delayed development, damage to the nervous system, and difficulties with learning and attention. Symptoms may not appear right away, particularly at low levels, which is why screening for lead exposure is crucial.

At higher lead levels, children may have lifelong health conditions and social challenges. According to researchers at Case Western Reserve University, Cleveland students with a blood lead level of at least 5 ug/dL faced educational setbacks and increased involvement in the juvenile justice system. As adults, these same children were also more likely to be in prison, experience homelessness, and rely on social services and public assistance for basic needs.

### Contact Information

For questions related to lead exposure data, please contact [epi@ccbh.net](mailto:epi@ccbh.net).

To schedule a blood lead test at the Cuyahoga County Board of Health, please contact the Clinic at 216.201.2041.

For questions about home lead assessments and repairs, please contact Stephanie McConoughey at 216.201.2001 ext. 1244 or [smconoughey@ccbh.net](mailto:smconoughey@ccbh.net).

**\*For EBL-related activities, the city of Cleveland is not included in the Cuyahoga County Board of Health jurisdiction.**

For information about lead prevalence in the City of Cleveland, please refer to the most recent data brief from the Cleveland Department of Public Health [here](#).

For lead-related inquiries in the City of Cleveland, call 216.263.5323.

**Methodology**

Lead testing information is protected and securely accessed via the Data Ohio platform. This data is provided by Ohio Healthy Homes Lead Poisoning Prevention Program (OHHLPPP) at Ohio Department of Health (ODH). The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions from these data.

For children with multiple blood lead tests in 2023, the highest blood lead test per child was counted. Elevated tests in this report consist of confirmed blood tests only.

2023 lead testing data for the City of Cleveland is publicly available through from the Cleveland Department of Public Health's 2023 Lead Poisoning Data Brief, available at [clevelandhealth.org](http://clevelandhealth.org).

Historical lead testing data for Cuyahoga County and the City of Cleveland (2015-2022) was taken from the Cuyahoga County Board of Health Elevated Blood Lead Level Reports available at [ccbh.net](http://ccbh.net).

Population data for Cuyahoga County children (excluding the City of Cleveland) was obtained from the 2020 Decennial Census, Table PCT12. (U.S. Census Bureau. "SEX BY SINGLE-YEAR AGE." Decennial Census, DEC Demographic and Housing Characteristics, Table PCT12.)

Housing data for Cuyahoga County was obtained from American Community Survey 5-Year Estimates Detailed Tables (ACSDT5Y2023), Table B25034. (U.S. Census Bureau, U.S. Department of Commerce. "Year Structure Built." American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B25034.)

## References

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