

Childhood Blood Lead Level Testing Data Note



Background

There is no safe level of lead in children. Even low levels of lead in blood can be harmful, especially for young children. Most children who have lead poisoning do not look or act sick. Therefore, a blood lead test is the best way to know if a child has been exposed to lead recently. Blood lead tests measure how many millionths of a gram (micrograms or μg) of lead are in each tenth of a liter (deciliter or dL) of a child's blood ($\mu\text{g}/\text{dL}$).

Washington has some of the lowest childhood blood lead testing rates in the United States. Early identification of lead exposure, such as through blood lead testing, is important to children's health and futures. The CDC recommends a blood lead test at 12 and 24 months of age for young children at risk for lead poisoning. DOH recommends that healthcare providers consider a child's risk using a [clinical algorithm](#) and use their clinical judgment to decide whether a child needs a blood lead test. Federal law mandates that all Medicaid-enrolled children be tested at 12 and 24 months of age or once before 72 months if there is no record of a previous lead test.

Data Source and Methods

Blood Lead Test Data

Test results displayed are for children under 72 months of age by year. Currently, most of Washington state responds at a higher blood lead level (BLL) at $\geq 5\mu\text{g}/\text{dL}$. This data may contain suspect (unconfirmed) and false positive results.

A child is counted once per calendar year. If a child has more than one test result in a given calendar year, the highest test result is reported in this data set.

Data from the Child Blood Lead surveillance database only represents blood lead tests reported to the state. Per [WAC 242-101-201](#), laboratories are required to report all child and adult blood lead tests, regardless of test results, to the state Department of Health. Blood lead levels $\geq 5\mu\text{g}/\text{dL}$ must be reported within 2 business days; test results $< 5\mu\text{g}/\text{dL}$ must be reported within 30 days.

Sample type (venous, capillary) is important for interpreting a blood lead test result. However, sample type data is missing for approximately 18.9% of tests in 2018-2022.

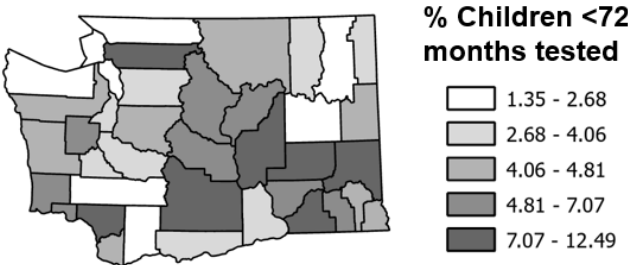
Population Data

Due to the current lack of Small Area Data Estimates from the Office of Financial Management (OFM), the population data used to calculate rates for this measure come from the population interim estimates (PIE) developed by Public Health - Seattle and King County (PHSKC). This change was made in September 2023. Because PIE has been applied to historic data, some rates will differ from previously published data.

Map Layer – Childhood Blood Lead Test Rate

We mapped the percentage of children under 72 months of age tested for blood lead levels county level. Data were aggregated over 5 years (2018-2022). Quintiles are used to categorize the data into five equal parts. This allows for a comparative analysis of blood lead levels among different segments of the population. Each quintile represents 20% of the data set, so each category has an equal number of children.

We include data on the percentage of children tested with BLL $\geq 5\mu\text{g}/\text{dL}$ in the map pop-ups. We followed DOH suppression guidelines to protect individual privacy. Counties with greater than 0 but less than 10 tests $\geq 5\mu\text{g}/\text{dL}$ over the 5-year period were suppressed.



Limitations

Childhood blood lead surveillance data collected by the Department of Health (DOH) have several limitations. Even though it is required, not all test results are reported to DOH. Also, not all healthcare providers in Washington State perform confirmatory testing or report confirmatory test results after identifying a child with a higher blood lead level capillary (unconfirmed) result.

Currently, DOH includes children with any blood lead level results $\geq 5\mu\text{g}/\text{dL}$ in data summaries. This may include suspect (unconfirmed) and false positive tests.

Additionally, data collected by DOH may not be representative of all children in Washington. Children in certain age groups, race, ethnicity and/or geographic areas may be tested at a higher rate than others. Federal and Tribal health entities are not required to report to DOH under the notifiable conditions law. This results in DOH having limited data for these populations.



DOH 334-556 August 2024

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.