

# NEBRASKA

Good Life. Great Mission.

DEPT. OF HEALTH AND HUMAN SERVICES



Jim Pillen, Governor

January 1, 2024

Mr. Brandon Metzler  
Clerk of the Legislature  
State Capitol Room 2028  
Lincoln, NE 68509

Subject: Number of Children Screened for Elevated Blood-Lead Levels Report

Dear Mr. Metzler:

In accordance with Neb. Rev. Stat. §71-2518, please find attached a copy of the 2023 Annual Report on Elevated Blood Lead Levels for Children Age 0-6 Years Old. This report describes the work accomplished by the Nebraska Childhood Lead Poisoning Prevention Program and lists the number of children tested and the number of children with elevated blood lead levels in Nebraska during October 1, 2022 to September 30, 2023.

Sincerely,

A handwritten signature in blue ink that reads "Charity Menefee".

Charity Menefee  
Director, Division of Public Health

Attachment

# Division of Public Health

## Number of Children Screened for Elevated Blood-Lead Levels Report

January 2024

Neb. Rev. Stat. § 71-2518(3)

# Introduction

## Background

This report describes the progress that has been made in the prevention of childhood lead poisoning in Nebraska, including the number of children ages 0 through 6 years old (<84 months) tested for blood lead levels and who were confirmed to have elevated levels during the period of October 1, 2022 to September 30, 2023. The report compares the results of previous federal fiscal years, describes the DHHS Testing Plan, and provides updates on program activities.

## Program Overview

DHHS's first lead prevention program existed from 1990–2005. In 2017, DHHS applied for and received a four-year (2018–2021) grant from the Centers for Disease Control and Prevention (CDC) to restart and rebuild. Building upon the success of the four-year CDC grant, NeCLPPP was renewed for another five years (2021–2026).

The goal of NeCLPPP is to prevent lead exposures among children statewide. CDC grant funding allows DHHS to coordinate public health surveillance and response for children with elevated blood lead levels. NeCLPPP is funded for three key strategies: 1) strengthen blood lead testing; 2) enhance blood lead surveillance and detection; and 3) improve linkages of lead-exposed children to recommended services. CDC funding supports limited activities for primary prevention but does not cover lead abatement and direct services.

# Numbers of Children Tested and Confirmed Elevated Blood Lead Levels

## Blood Lead Level Reporting

Under Neb. Rev. Stat. § 71- 2518, all blood lead level tests conducted in Nebraska are required to be reported to the DHHS. Blood lead tests are also reportable under Title 173 Chapter 1 of the Nebraska Administrative Code, which requires physicians and laboratories to report test results within 7 days.<sup>1</sup> Blood lead test reports are submitted to DHHS either by automated electronic laboratory reporting or via mail or facsimile to be manually entered.

## Elevated Blood Lead Level Definition

NeCLPPP uses a blood lead reference value to define an elevated blood lead level. The blood lead reference value is a screening tool to identify children who have higher levels of lead in their blood compared with most children. From 2012–2021, the reference value was 5

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<sup>1</sup> Nebraska Reportable Disease Regulations: [https://www.nebraska.gov/rules-and-regs/regsearch/Rules/Health\\_and\\_Human\\_Services\\_System/Title-173/Chapter-01.pdf](https://www.nebraska.gov/rules-and-regs/regsearch/Rules/Health_and_Human_Services_System/Title-173/Chapter-01.pdf)

micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ). In October 2021, the CDC adopted a new blood lead reference value of  $3.5 \mu\text{g}/\text{dL}$ .<sup>2</sup> In December 2021, in partnership with the DHHS Childhood Lead Prevention Advisory Group, NeCLPPP approved the updated blood lead reference value of  $3.5 \mu\text{g}/\text{dL}$  for Nebraska. Fiscal Year 2022 is the first year using the lower blood lead reference value, and therefore the numbers of children with elevated blood lead levels significantly increased in this fiscal year.

## Data Methods

NeCLPPP uses standardized case definitions to classify children with elevated blood lead levels by case status (confirmed and suspect cases).<sup>3</sup> A confirmed blood lead case is defined as a child with one venous blood test  $\geq 3.5 \mu\text{g}/\text{dL}$  (or two capillary blood tests drawn within 12 weeks of each other). A suspect or unconfirmed case is defined as a child with a single capillary blood lead test  $\geq 3.5 \mu\text{g}/\text{dL}$ . Beginning with FY22, data are reported by confirmed and suspect cases. Prior years data were also revised, so numbers in this report may not match with previous years.

## Children Tested

From October 1, 2022 to September 30, 2023, 35,508 children ages 0 through 6 years old were tested for blood lead. The number of children tested in FY23 increased compared to the previous fiscal year, but the number is still below testing levels seen in FY19. The decline in testing since 2019 is likely attributed to the COVID-19 pandemic and fewer children receiving routine preventative care.<sup>4</sup>

## Number of Children With Elevated Blood Lead Levels

From October 1, 2022 to September 30, 2023, 684 children aged 0 through 6 years old met the definition of a confirmed elevated blood lead level case (1.9% of children tested). The number of suspect cases among children was 644 (1.8% of children tested). The total number of children identified as either a confirmed or suspect elevated blood lead level case was 1,328 (3.7% of children tested).

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<sup>2</sup> CDC. <https://www.cdc.gov/nceh/lead/news/cdc-updates-blood-lead-reference-value.html>

<sup>3</sup> CDC. <https://www.cdc.gov/nceh/lead/data/case-definitions-classifications.htm>

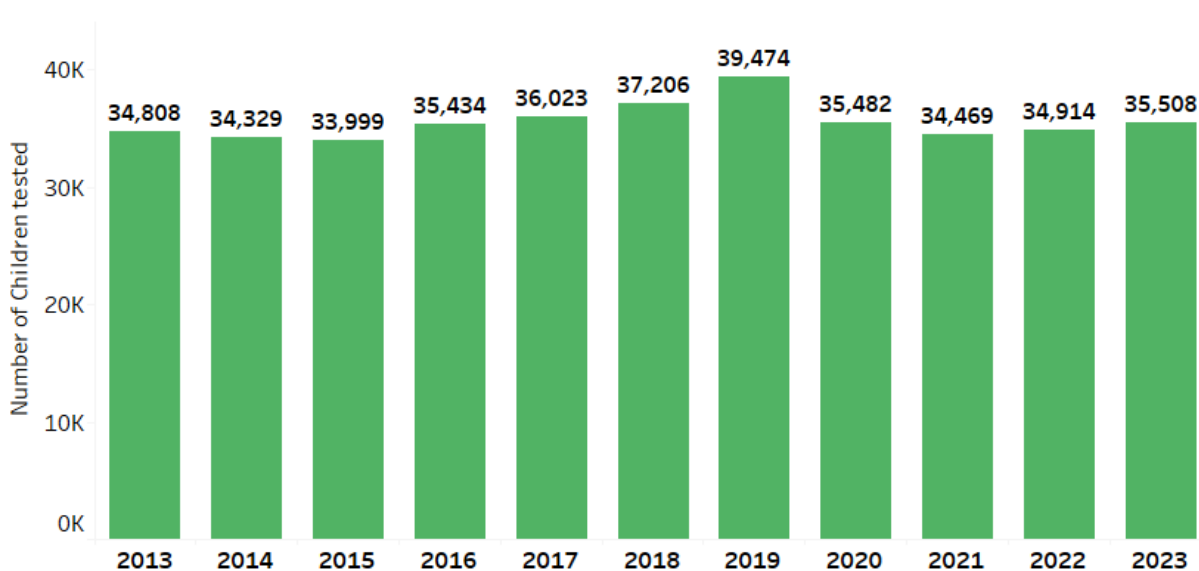
<sup>4</sup> CDC. <https://www.cdc.gov/mmwr/volumes/70/wr/mm7005a2.htm>

## Nebraska Children Aged 0-6 Years Old (<84 months) Tested for Lead and with Elevated Blood Lead Levels, By Case Status and Federal Fiscal Year

Federal fiscal year	# Children tested	Confirmed cases		Suspect cases		Total cases	
		#	% of tested	#	% of tested	#	% of tested
2013	34,808	446	1.3%	487	1.4%	933	2.7%
2014	34,329	515	1.5%	654	1.9%	1,169	3.4%
2015	33,999	444	1.3%	570	1.7%	1,014	3.0%
2016	35,434	449	1.3%	532	1.5%	981	2.8%
2017	36,023	516	1.4%	504	1.4%	1,020	2.8%
2018	37,206	459	1.2%	449	1.2%	908	2.4%
2019	39,474	425	1.1%	383	1.0%	808	2.0%
2020	35,482	334	0.9%	283	0.8%	617	1.7%
2021	34,469	321	0.9%	202	0.6%	523	1.5%
2022*	34,914	582	1.7%	441	1.3%	1,023	2.9%
2023*	35,508	684	1.9%	644	1.8%	1,328	3.7%

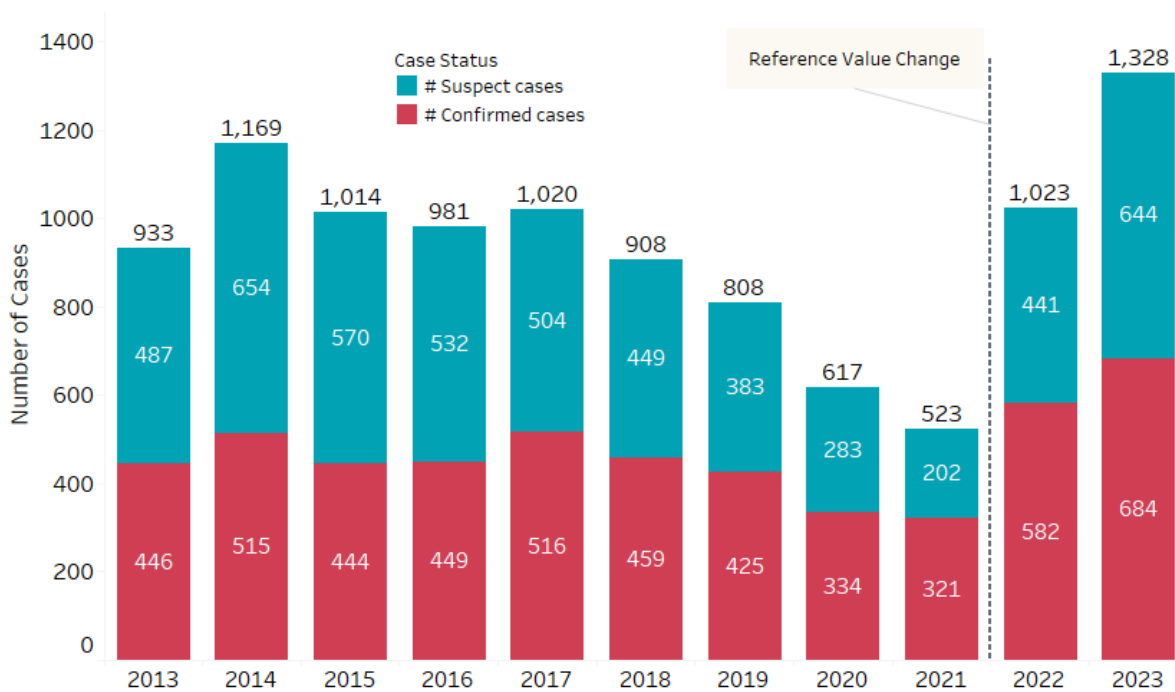
\*FY22 and FY23 data uses the new blood lead reference value of 3.5 µg/dL to define an elevated blood lead level. The blood lead reference value during FY13–FY21 was 5.0 µg/dL. Data are provisional and may be revised. Source: Nebraska DHHS Blood Lead Surveillance System

## Annual Number of Nebraska Children Aged 0-6 Years Old (<84 months) Tested for Blood Lead, by Federal Fiscal Year



Data are provisional and may be revised. Source: Nebraska DHHS Blood Lead Surveillance System.

## Annual Number of Nebraska Children Aged 0-6 Years Old (<84 months) with Elevated Blood Lead Levels, By Case Status and Federal Fiscal Year



Data are provisional and may be revised. \*FY22 data uses the new blood lead reference value of 3.5 µg/dL to define an elevated blood lead level. The blood lead reference value during FY13–FY21 was 5.0 µg/dL. Source: Nebraska DHHS Blood Lead Surveillance System.

## Statewide Blood Lead Testing Plan

In 2012, DHHS developed the first statewide plan that provided guidance for which children should receive a screening test for lead poisoning based on three criteria: geography, Medicaid status and completing a questionnaire. The Testing Plan was routinely distributed to local health department (LHD) staff and health care providers on an ad-hoc basis.

### Updates to Statewide Blood Lead Testing Plan

NeCLPPP started the process for updating the Statewide Blood Lead Testing Plan in August 2022 with the goal of releasing it in 2023. The update was necessary since the blood lead reference value was updated from 5 to 3.5 µg/dL in December of 2021, and a need to review case data to reassess the high-risk zip code areas. The same testing criteria used in the original plan was used in the update.

The updated 2023 Nebraska Blood Lead Testing Plan is posted on the DHHS website at: <https://dhhs.ne.gov/Pages/Lead-Resources-for-Health-Care-Professionals.aspx>.

## Testing Criteria 1: Medicaid and WIC Programs

The first criterion of the plan states what is currently required by the Medicaid. Required under the Nebraska Medicaid regulations (471 NAC 33), all children insured by Medicaid must be tested at 12 and 24 months. Children between the ages of 36 months and 72 months of age must receive a screening blood lead test if they have not been previously screened for lead poisoning.<sup>5</sup>

## Testing Criteria 2: High-Risk Zip Codes

Children living in high-risk zip codes should receive a blood lead test at 12 and 24 months of age. Children between the ages of 36 to 72 months of age should receive a blood lead test if they have not been previously tested. DHHS identified 125 new zip codes which have high prevalence of elevated blood lead levels among children.

## Testing Criteria 3: Risk Questionnaire

The third criterion of the Plan consists of a questionnaire designed to identify lead exposure risks not addressed by the other criteria. The child's parents or guardians should be asked specific exposure questions to determine each child's risk annually through age five. If the response to any of the questions is "yes" or "don't know," the child should be tested.

## Other Testing Considerations

The Testing Plan update included information on testing recommendations for other populations that include: pregnant women; newly arrived refugees; Women, Infant, and Children (WIC) Program participants; and adults with occupation or hobby exposures. Other patients to consider blood lead testing includes children with history of ingesting non-food items or pica behavior, children with autism, ADHD, or learning delays, and parents who request blood lead tests.

## Clinician Resources

To better serve and support clinicians, NeCLPPP developed additional resources for blood lead testing. A clinician algorithm and anticipatory guidance helps clinicians make testing decisions and share key messages for parents and guardians. Medical and case management recommendations were also included to guide providers on lead exposure prevention, repeat testing, and coordination with LHDs to provide support to impacted families.

# Education and Community Outreach Activities

Education and community outreach is a core element of NeCLPPP. Ongoing outreach is done through the LHDs statewide with an emphasis on providing education to families who have a lead exposed child, emphasizing the needs for more lead testing with healthcare providers, and

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<sup>5</sup> CMS. <https://www.medicaid.gov/medicaid/benefits/epsdt/lead-screening/index.html>

communicating to the public about the dangers of lead and how to prevent exposures. Various channels of education and outreach are done to reach specific populations with key messaging.

Activity	Description
<b>Lead Website</b>	The NeCLPPP lead website, available at <a href="https://dhhs.ne.gov/lead">https://dhhs.ne.gov/lead</a> , provides easily accessible information to the public and specific audiences such as parents, homeowners, and healthcare providers.
<b>Lead Poisoning Prevention Campaign</b>	A childhood lead poisoning prevention campaign was launched in 2019, with a target audience of parents and caregivers. The landing webpage for the campaign is available at <a href="http://www.lead-safe.ne.gov">www.lead-safe.ne.gov</a> . NeCLPPP continues to maintain and promote the <a href="http://www.lead-safe.ne.gov">lead-safe.ne.gov</a> .
<b>Educational Materials for Parents</b>	<p>NeCLPPP developed educational materials for parents of young children. The following factsheets and brochures are available in English, Spanish, Arabic, Nepali, and Somali and are accessible on the DHHS website (<a href="https://dhhs.ne.gov/Pages/Lead-Educational-Materials.aspx">https://dhhs.ne.gov/Pages/Lead-Educational-Materials.aspx</a>). Printed copies are also distributed to 18 LHDs upon request. NeCLPPP worked to translate the fact sheets in several language based on the needs identified by the LHDs.</p> <p><b>Factsheets:</b></p> <ul style="list-style-type: none"> <li>• Lead Poisoning in Children, Sources of Lead, How to Protect Your Child from Lead, Your Child’s Blood Lead Level</li> </ul> <p><b>Brochures:</b></p> <ul style="list-style-type: none"> <li>• Childhood Lead Poison Prevention, Lead Dust Clean-Up and Control, Preventing Lead Poisoning in Adults, Lead in Toys, Protect Your Family From Lead in Your Home, Keep Nebraska Homes Lead Safe, The Lead-Safe Certified Guide to Renovate Right</li> </ul>
<b>Health Care Provider Guidelines</b>	NeCLPPP maintains recommendations and guidelines for healthcare providers. These documents provide recommendations for managing elevated blood lead levels. The Medical Management Recommendations can be found here: <a href="https://dhhs.ne.gov/Pages/Lead-Resources-for-Health-Care-Professionals.aspx">https://dhhs.ne.gov/Pages/Lead-Resources-for-Health-Care-Professionals.aspx</a>
<b>2022 National Lead Poisoning Prevention Week</b>	NeCLPPP worked to promote and communicate key messages associated with the National Lead Poisoning Prevention Week during the week of October 23-29, 2022. The key messages of “Get the Facts”, “Get Your Child Tested”, and “Get Your Home Tested” were disseminated using DHHS social media channels.
<b>Health Alert</b>	DHHS issues Health Advisory through the Nebraska Health Alert Network informing healthcare providers, laboratories and other partners about lead poisoning prevention information. No Health Advisories were disseminated for lead poisoning prevention during the fiscal year. NeCLPPP has prepared a Health Advisory for the updated Statewide Blood Lead Testing Plan to be released in the December 2023.



# Initiate Contact with Local Public Health Departments and Physicians

NeCLPPP ensures children with elevated blood lead levels are identified through surveillance and linked to services through coordination with physicians, LHDs, and parents when requests for additional assistance are received. Through its CDC grant, NeCLPPP provides subaward funding to 18 LHDs for conducting local blood lead level surveillance; providing investigation and public health responses; and assisting DHHS in coordinating inspections, referrals, and community linkages for services. NeCLPPP does not fund Douglas County Health Department because it already receives funding through other federal sources.

LHD lead staff consist of nurses, epidemiologists and community health educators who help to reduce lead exposures. Many of these staff members work across multiple health promotion and disease prevention areas. State and local public health staff were able to conduct the following activities from October 2022 to September 2023:

## Case Follow-up Actions for October 1, 2022–September 30, 2023

- 322 letters were sent to parents of children with elevated blood lead levels.
- 972 contact interactions (phone or mail) were made with health care providers of children with elevated blood lead levels.
- 1,869 contact interactions (phone or mail) were made with parents of children with elevated blood lead levels.
- 390 educational packets were sent to parents of children with elevated blood lead levels.
- 202 educational home visits were conducted.
- 147 environmental interviews were conducted.
- 144 environmental risk assessments were conducted.
- 231 environmental investigations for children with elevated blood lead levels were conducted.
- 126 additional referrals to other resources (housing, nutrition, lead testing in drinking water, etc.) were provided to families on an as-needed basis.