

NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES



Pete Ricketts, Governor

January 11, 2023

Brandon Metzler, Clerk of the Legislature
State Capitol, Room 2028
P.O. Box 94604
Lincoln, NE 68509-4604

RE: 2022 Elevated Blood Lead Level Annual Report

Dear Mr. Metzler:

In accordance with Neb. Rev. Stat. §71-2518, please find attached a copy of the 2022 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, 2021 to September 30, 2022.

Sincerely,

A handwritten signature in cursive script that reads "C. Menefee".

Charity Menefee
Director, Division of Public Health
Department of Health and Human Services

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Nebraska Childhood Lead Poisoning Prevention Program

2022 Annual Report to Nebraska Legislature October 1, 2021 to September 30, 2022

Background

In April 2012, the Nebraska Legislature passed the Childhood Lead Poisoning Prevention Act, codified in Neb. Rev. Stat. §§ 71-2513 to 71-2518.¹ The statutes require that the Nebraska Department of Health and Human Services (DHHS) Division of Public Health establish a Lead Poisoning Prevention Program which includes the following components:

- Develop a statewide blood lead testing plan and a risk assessment screening questionnaire.
- Develop an educational and community outreach plan including development of educational materials.
- Initiate contact with the local public health departments (LPHDs) or the physician when a child has an elevated blood lead level (EBLL) and offer technical assistance.
- Report annually to the Legislature.

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, 2021 to September 30, 2022. The report compares the results of previous federal fiscal years, describes the DHHS Testing Plan, and provides updates on program activities.

Program Overview

Nebraska 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, the Nebraska Childhood Lead Poisoning Prevention Program (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 does not support activities such as primary prevention, lead abatement, or other direct services.

DHHS Funding Summary for Nebraska Childhood Lead Poisoning Prevention Program

	Federal Fiscal Year									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Federal (CDC)	\$0	\$0	\$0	\$0	\$391,795	\$543,163	\$402,343	\$482,812	\$350,000	\$350,000

¹ Neb. Rev. Stat. §§ 71-2513 to 71-2518 <https://nebraskalegislature.gov/laws/statutes.php?statute=71-2518>

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.² Blood lead test reports are submitted to the 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 (BLRV) to define an elevated blood lead level (EBLL). The BLRV 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 micrograms per deciliter (µg/dL). In October 2021, CDC adopted a new BLRV of 3.5 µg/dL.³ In December 2021, in partnership with the DHHS Childhood Lead Prevention Advisory Group, NeCLPPP approved the updated BLRV of 3.5 µg/dL for Nebraska. Fiscal Year 2022 is the first year using the lower BLRV, and therefore the numbers of children with EBLLs significantly increased in this fiscal year.

Data Methods

NeCLPPP revised its methods and used standardized case definitions to classify children with EBLLs by case status (confirmed and suspect cases).⁴ A confirmed EBLL is defined as a child with one venous blood test \geq 3.5 µg/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 µg/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, 2021 to September 30, 2022, **35,281 children ages 0 through 6 years old were tested for blood lead**. The number of children tested in FY22 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.⁵

Number of Children With Elevated Blood Lead Levels

From October 1, 2021 to September 30, 2022, **595 children aged 0 through 6 years old had confirmed EBLL case** (1.69% of children tested). The number of confirmed cases was higher than previous years due to the new BLRV of 3.5 µg/dL used in 2022. The number of suspect cases among children was 472 (1.34% of children tested). The total number of children with a confirmed or suspect EBLL case was 1,067 (3.0% of children tested).

² Nebraska Reportable Disease Regulations: https://www.nebraska.gov/rules-and-regs/regsearch/Rules/Health_and_Human_Services_System/Title-173/Chapter-01.pdf

³ CDC. <https://www.cdc.gov/nceh/lead/news/cdc-updates-blood-lead-reference-value.html>

⁴ CDC. <https://www.cdc.gov/nceh/lead/data/case-definitions-classifications.htm>

⁵ 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	34,033	433	1.3%	480	1.4%	913	2.7%
2014	33,565	496	1.5%	656	2.0%	1,152	3.4%
2015	33,237	423	1.3%	562	1.7%	985	3.0%
2016	34,662	436	1.3%	524	1.5%	960	2.8%
2017	35,356	504	1.4%	498	1.4%	1,002	2.8%
2018	37,011	457	1.2%	447	1.2%	904	2.4%
2019	39,497	425	1.1%	383	1.0%	808	2.0%
2020	35,344	334	0.9%	283	0.8%	617	1.7%
2021	34,458	321	0.9%	202	0.6%	523	1.5%
2022*	35,281	595	1.7%	472	1.3%	1,067	3.0%

*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.

Data are provisional and may be revised.

Source: Nebraska DHHS Blood Lead Surveillance System.

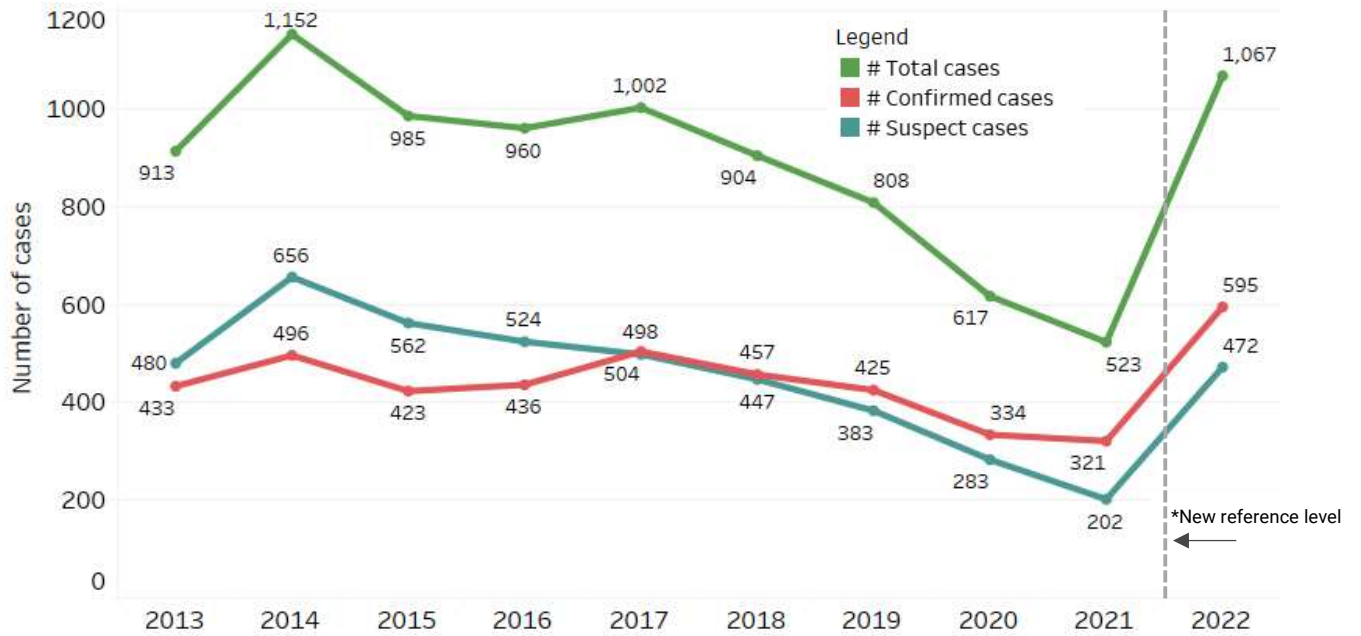
Annual Number of Nebraska Children Aged 0-6 Years Old (<84 months) Tested for Blood Lead, by Federal Fiscal Year



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 a 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 has been routinely distributed to LPHD staff and health care providers on an ad-hoc basis. The Plan is available on the DHHS website at <https://dhhs.ne.gov/Lead%20Documents/DHHSBloodLeadTestingPlan.pdf> and is summarized at the end of this report.

Testing Criteria 1: Geography

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. Previously, DHHS identified 32 zip codes which have high prevalence of elevated blood lead levels.

Testing Criteria 2: Medicaid and WIC Programs

The second criterion of the plan states what is currently required by the Medicaid and Women, Infants, and Children (WIC) programs. Per federal and state law, 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.⁶ WIC requires that upon enrollment of a child, the parent must be asked if the child has had a blood lead test. If the child has not had a test, they must be referred to programs where they can obtain such a test.⁷

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 5. If the response to any of the questions is "yes" or "don't know," the child should be tested.

Statewide Blood Lead Testing Plan Update

NeCLPPP started the process for updating the Statewide Blood Lead Testing Plan in August 2022. The update was necessary since the BLRV 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 criteria used in the original testing plan will also be used in the update.

NeCLPPP's process to update the Plan includes analyzing and reviewing the updated data (August 2022) and defining a process for selecting new high-risk zip codes based relevant data (September 2022). NeCLPPP has engaged with the Statewide Lead Prevention Advisory Group to discuss updates to the Testing Plan. The Plan is expected to be finalized and disseminated to healthcare providers in early 2023.

⁶ CMS. <https://www.medicaid.gov/medicaid/benefits/epsdt/lead-screening/index.html>

⁷ WIC. <https://www.fns.usda.gov/wic/role-screening-childhood-lead-poisoning-0>

Education and Community Outreach Activities

Education and community outreach is a core element of NeCLPPP. Ongoing outreach is done through the LPHDs 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 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
Lead Website	The DHHS lead website, available at https://dhhs.ne.gov/lead , provides easily accessible information to the public and specific audiences such as parents, homeowners, and health care providers.
Lead Poisoning Prevention Campaign	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 www.leadSAFE.ne.gov . The Nebraska Childhood Lead Poisoning Prevention Program continues to maintain leadSAFE.ne.gov.
Educational Materials for Parents	<p>DHHS developed educational materials for parents of young children. The following factsheets and brochures are available in English and Spanish and are accessible on the DHHS website (https://dhhs.ne.gov/Pages/Lead-Educational-Materials.aspx). Printed copies are also distributed to 18 LPHDs upon request. NeCLPPP worked to make updates to the factsheets and disseminated them in September 2022. Additional efforts began in the fall of 2022 to focus on translating these education materials based on the needs from LPHDs.</p> <p><u>Factsheets (UPDATED):</u></p> <ul style="list-style-type: none"> • Lead Poisoning in Children, Sources of Lead, How to Protect Your Child from Lead, Your Child’s Blood Lead Level <p><u>Brochures:</u></p> <ul style="list-style-type: none"> • 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
Health Care Provider Guidelines	DHHS maintains recommendations and guidelines for health care providers. The guidelines were updated in June 2022 and disseminated using the Health Alert system. These documents provide recommendations for managing elevated blood lead levels. The Medical Management Recommendations can be found here: https://dhhs.ne.gov/Pages/Lead-Resources-for-Health-Care-Professionals.aspx#SectionLink1
Health Alert	In May 2022, DHHS issued a Health Advisory through the Nebraska Health Alert Network informing health care providers, laboratories and other partners about the updated BLRV moving from 5 µg/dL to 3.5 µg/dL. The Alert provided the recommendation to healthcare providers to adopt the new updated BLRV and push for increased testing.

Initiate Contact with Local Public Health Departments and Physicians

NeCLPPP ensures children with EBLLs are identified through surveillance and linked to services through coordination with physicians, LPHDs, and parents when requests for additional assistance are received. Through its CDC cooperative agreement, NeCLPPP provides subaward funding to 18 LPHDs 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.

LPHD 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. LPHDs were still impacted by the COVID-19 public health emergency, which delayed efforts in addressing lead prevention and control. Despite the limitations, state and local public health staff were able to conduct the following activities from October 2021 to September 2022:

Case Follow-up Actions for October 1, 2021–September 30, 2022

- 236 letters were sent to parents of children with EBLLs.
- 473 contact interactions (phone or mail) were made with health care providers of children with EBLLs.
- 832 contact interactions (phone or mail) were made with parents of children with EBLLs.
- 194 educational packets were sent to parents of children with EBLLs.
- 138 educational home visits were conducted.
- 186 environmental investigations for children with EBLLs were conducted.
 - DHHS conducted 31 on-site lead environmental investigations. For children not residing in Douglas County, DHHS currently provides on-site lead investigation home visits for children with confirmed blood lead levels $\geq 10 \mu\text{g/dL}$.
 - Douglas County Health Department (DCHD) conducted 155 lead environmental investigations.
- 98 additional referrals to other resources (housing, legal, nutrition, lead testing in drinking water, etc.) were provided to families on an as-needed basis.
 - City Department- 8
 - Educational Intervention- 6
 - Family Blood Lead Lab Testing- 1
 - Health Care Provider- 24
 - Home Visiting Program- 7
 - Housing Assistance- 1
 - Omaha Healthy Kids Alliance- 1
 - Other- 6
 - WIC/Nutritional- 44