

Annual Report on Elevated Blood Lead Levels for Children 0 – 72 Months Old as required by Neb. Rev. Stat. § 71-2518

Presented to Governor Dave Heineman and the Health and Human Services Committee of the Legislature

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AA/EOE/ADA

Annual Report on Elevated Blood Lead Levels for Children 0-72 Months Old

Nebraska Revised Statute 71-2518 requires that the Division of Public Health establish a Lead Poisoning Prevention Program that includes the following duties:

- Develop a statewide blood lead risk assessment/blood lead testing plan
- Develop educational materials targeted to health care providers, child care providers, public school personnel, owners and tenants of residential dwellings, and parents of young children.
- Initiate contact with the local public health department or the physician when a child has an elevated blood lead level (EBLL) and offer technical assistance
- Report annually to the legislature

This report provides a summary of the progress that has been made in the establishment of the duties prescribed above.

Statewide Plan Development

DHHS developed a statewide Plan with three criteria for testing children for lead poisoning. The first criterion is geography. To isolate important geographic variables, DHHS studied surveillance and demographic data, the percentage of older housing, and locations of known lead sources. The methodology used determined zip codes that historically have had increased risk of lead exposure. These include the Omaha Superfund Site (Baseline Human Health Risk Assessment, Omaha Lead Superfund Site, DHHS, 2004) as well as those zip codes with at least 5 lead poisoning cases between 2009 and 2011 and with more than 27% of the housing stock built before 1950. These zip codes are re-evaluated annually and will be updated as necessary. Until more data is collected, it was determined that no changes to the plan are necessary at this time.

The second criterion of the plan states what is currently required by the Medicaid and Women, Infants, and Children (WIC) programs. All children insured by Medicaid must be tested. No exceptions or waivers currently exist. 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 (Federal Policy MPSF-WC-01-05-P).

The third criterion of the plan consists of a questionnaire designed to identify 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. If the response to any of the questions is "yes" or "don't know," the child should be tested. The questions are as follows:

- 1. Does the child live in or often visit a house, daycare, preschool, home of a relative, etc., built before 1950?
- 2. Does the child live in or often visit a house built before 1978 that has been remodeled within the last year?
- 3. Does the child have a brother, sister or playmate with lead poisoning?
- 4. Does the child live with an adult whose job or hobby involves lead?
- 5. Does the child's family use any home remedies or cultural practices that may contain or use lead?
- 6. Is the child included in a special population group, i.e., foreign adoptee, refugee, migrant, immigrant, foster care child?

This Statewide Blood Lead Testing Plan has been sent to all members of the Nebraska Medical Association. It is available on the DHHS website at: dhhs.ne.gov/lead.

The current plan is summarized on the following chart:

Nebraska DHHS Division of Public Health/Childhood Lead Poisoning Prevention Program Statewide Blood Lead Risk Assessment/Blood Lead Testing Plan

Three Criteria for Testing a Child for Lead Poisoning

GEOGRAPHY

CRITERION

All Children Living in One of Nebraska's Targeted Communities for Lead Assessment/Testing

Specifics for Each Criterion

Alliance - 69301 Harvard - 68944 Omaha - 68102, 68104, Beatrice – 68310 68105, 68106, 68107, Hastings - 68901 68108, 68110, 68111. Fremont – 68025 Lincoln - 68502, 68503 68112, 68131, 68132 Nebraska City - 68410 Grand Island – 68801 Scottsbluff - 69361

DHHS strongly recommends that all children living in these communities be tested for lead poisoning at 12 and 24 months of age. Children between 25 and 72 months of age need to be tested as soon as possible, if not previously tested.

Please note that targeted communities may change as more blood lead data is obtained. Zip codes will be re-evaluated annually and posted each July at www.dhhs.ne.gov/lead.

MEDICAID AND WIC

TESTED—NO EXCEPTIONS OR WAIVERS EXIST.

Medicaid: ALL CHILDREN INSURED BY MEDICAID MUST BE N

WIC:

Federal Policy (MPSF:WC-01-05-P) 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

Medicaid:

CMS (Centers for Medicare and Medicaid Services) requires that all children receive a screening blood lead test at 12 months and 24 months of age. 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. A blood lead test must be used when screening Medicaid-eligible children.

(http://www.cms.gov/MedicaidEarlyPeriodicScrn/)

(http://www.sos.ne.gov/rules-and-regs/regsearch/Rules/Health and Human Services System/Title-471/Chapter-33.pdf)

WIC:

For every child age 12 months and older, during the Nutrition Risk Assessment, WIC staff will ask the question "Has your child had a blood lead test done in the past 12 months?" Document the Yes or No

If a child has not had a blood lead test done, staff make and document a referral for a blood lead test back to their healthcare provider or to a lead screening program.

OUESTIONNAIRE

CRITERION

For Children NOT Enrolled in Medicaid or WIC And

Children NOT Residing within a Target Community

The child's parents/guardians should be asked specific exposure questions (see questions at right) to determine each child's risk. If the response to any of the exposure questions is "yes" or "don't know," the child should be tested.

OUESTIONNAIRE

- 1) Does the child live in or often visit a house, daycare, preschool, home of a relative, etc., built before 1950?
- 2) Does the child live in or often visit a house built before 1978 that has been remodeled within the last year?
- 3) Does the child have a brother, sister or playmate with lead poisoning?
- 4) Does the child live with an adult whose job or hobby involves lead?
- 5) Does the child's family use any home remedies or cultural practices that may contain or use lead?
- 6) Is the child included in a special population group, i.e., foreign adoptee, refugee, migrant, immigrant, foster care child?

For additional information, i.e. jobs, hobbies, home remedies, cultural practices that include lead, visit dhhs.ne.gov/lead

Development of Educational Materials

The DHHS Office of Environmental Health Hazards and Indoor Air continues to update its website to make information more easily attainable. The following new brochures were developed this year:

- Childhood Lead Poison Prevention
- Lead Dust Clean-Up and Control
- Preventing Lead Poisoning in Adults

These brochures are attached and are available on the DHHS website at <u>dhhs.ne.gov/lead</u>, along with other educational materials and resources.

Initiate Contact with Local Public Health Departments and Physicians

During the first year, a video conference was held with many of the local health departments through the Nebraska Statewide Telehealth Network to discuss the development of the Statewide Blood Lead Testing Plan. Subsequently, the Office of Epidemiology has held monthly conference calls with Surveillance Coordinators at local health departments and has discussed protocols and guidelines for responding to individuals with elevated blood lead levels.

In addition to updating the DHHS Lead Program website, a PowerPoint presentation was developed to aid staff in health care providers' offices across the state with learning about the new blood lead testing plan.

Medical guidelines that provide follow-up recommendations for elevated blood lead levels were also developed and made available online. The Medical Management Recommendations for Health Care Professionals are outlined on the attached chart.

The Childhood Lead Poisoning Prevention Program

The Nebraska Childhood Lead Poisoning Prevention Program has successfully helped to lower many children's blood lead levels through educating parents on lead hazards. The program keeps track of children who have had their blood lead levels tested. For parents of children with elevated blood levels, we provide education to show them the lead hazards in their environment and safe options for remediating those hazards.

We also provide comprehensive literature on lead with information on:

- Lead's Harmful Effects
- Finding Lead Hazards in Your Home
- Safe Ways to Reduce These Lead Hazards

Additional resources

- Environmental Protection Agency
 Headpubs/leadinfo.htm
- Centers for Disease Control and Prevention
- U.S. Consumer Product Safety Commission
- Omaha Healthy Kids Alliance

For more information

If you would like more information regarding lead and lead poisoning, please write or call:

In Nebraska: Childhood Lead Poisoning Prevention Program Nebraska Department of Health and Human Services 301 Centennial Mall South P.O. Box 95026 Lincoln, NE 68509-5026 402-471-0386 or 888-242-1100, ext. 3

www.dhhs.ne.gov/lead

In Douglas County:
Douglas County Health Department
Childhood Lead Poisoning Prevention Program
1111 South 41st Street, Suite 130
Omaha, NE 68105 402-444-7825

www.douglascountyhealth.com/healthy-children/ lead-poisoning-prevention

In Lancaster County: Lincoln-Lancaster County Health Department 3140 N Street Lincoln, NE 68510 402-441-8000

lincoln.ne.gov/city/health/



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HHS-PAM-1 Rev. 10/12 (88001) (Do NOT use previous version)



Children From Lead

Nebraska Department of Health and Human Services Division of Public Health

Thousands of Nebraska children have had elevated blood lead levels.

The most common sources of exposure include:

Lead-Based Paint

Lead dust, which is invisible, is created from deteriorated lead-based paint. It is the main cause of lead poisoning in Nebraska's children. Lead-based paint is especially subject to friction around windows, in window troughs (wells), and on sills and sashes. Lead was banned for use as an additive to paint in 1978, with sharp decline in its use from 1960 to 1978.

Lead-Contaminated Soil Soil often becomes contaminated by deteriorated exterior lead-based paints and

old leaded gasoline. Occupational Exposure
 Workers may bring lead home with them,

contaminating their homes.

Stained glass, fishing sinkers, automotive repair, reloading ammunition.

Dishes

Imported, ceramic, lead crystal, potter glazes.

- Some Plumbing Fixtures
- · Some Toys, Imported Candy, and Jewelry

Why is lead dangerous?

Lead may harm a child's brain and central nervous system. Even low blood lead concentrations could cause irreversible damage, such as:

- Impaired Development
- Delayed Development
- Behavioral Problems
- Hearing Loss

Which children should be tested for lead? Consider these points:

GeographyAll children living in certain zip codes (find these gov/lead) should be tested.

Medicaid and WIC

All children insured by Medicaid must be tested, and children enrolled in WIC are referred for lead testing.

If any of the six questions at our Web site can be answered yes about a child, the child should be tested for lead. These questions ask about the age of the child's home and other houses where they spend time; friends and family who have had lead poisoning or have jobs, hobbies, or cultural practices involving lead; and special populations such as refugees or migrants the child may be part of.

How can you protect your child from lead?

- · Check your home for possible lead hazards as listed on our Web site: www.dhhs.ne.gov/le
- Wash your children's hands often especially before they eat or sleep.
- · Keep your child's living and play areas clean and dust-free
- Do not let children put their hands, dirt, toys, or other nonfood items in their mouths
- Provide your children with plenty of calcium (milk, yogurt, and cheese) and iron (meats, peanut butter, and green leafy vegetables)
- · Keep out of children's reach all vinyl miniblinds that are not made in the USA or that do not specifically say "lead-free."

If your home was built before 1978:

- Before remodeling a home built before 1978, have it tested for lead-based paint and check for safe remodeling procedures at our Web site: www.dhhs.ne.gov/lead.
- Never DRY scrape, sand, power wash or sandblast possible lead-based paint. Wet sanding and scraping is acceptable with proper clean up.





Health effects of lead poisoning Lead interferes with the development and functioning of almost all body organs, particular the kidneys, red blood cells, and central nervous

Lead poisoning is much more serious when children are exposed to lead. Since their bodies are not fully developed, lead poisoning can cause:

Loss of IQ
Learning or behavior problems
Developmental delays
Brain, liver, and kidney damage
lecause the symptoms of lead poisoning are
imilar to those of flu or viruses, the only way to
now if a child is poisoned is to have a doctor
perform a simple blood test.

For more information about the health effects of exposure to lead, call 1-888-242-1100 or visit:

For more information would like more information regarding lead dust cleanup and control, please contact us at:

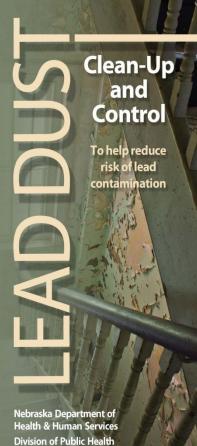
Office of Environmental Health Hazards & Indoor Air Nebraska Department of Health & Human Services

PO Box 95026 Lincoln, NE 68509-5026

(402) 471-0386 or 1-888-242-1100

www.dhhs.ne.gov/lead





Finding hazards in your home

ook for paint or stain that is loose, cracked, chipping, peeling, flaking, rubbing off, or deteriorating in any way.

When paint chips off, all layers of paint usually come off together. This can cause lead poisoning because earlier layers of paint may contain lead—even if the surface has been repainted with lead-free paint.

- Window hazards
 Check the sides and upper parts of the window.
 Check the sill and window for:
 Peeling
 Chipping
 Toys or other signs of child play
 Toys and other signs of child play such as chew marks
 Check the area between the interior window and screen.
 Check the window sash.
 Woodwork, walls, and doors

- Check the window sash.

 Woodwork, walls, and doors

 Check all surfaces for chipping and peeling paint.

 Look for impact chipping on corners of door frames, baseboards, and walls.

 Look for rub or scrape marks on door edges.

Stair and porch hazards

- Check for areas of chipping or peeling paint.
 Look for chewing on spindles, rails, treads, and edges.
 Check risers, baseboards, and stair tread for impact chipping.
 Look for worn areas on tread.



Finding hazards from outside

Lead dust can come in from outside the home Contaminated dust or soil can be tracked in on shoes and animals or blown in by the wind. Soil can be contaminated from:

- Deteriorated lead-based paint around the perimeter of the house
 Leaded additives in gasoline
 Industrial sources
 Demolition and paint removal from surrounding buildings

Lead can be brought home from work

- Sanding, scraping or blasting lead-based paint
 Renovating/repairing older homes
 Working in foundries and metal recyclers
 Making ammunition, firing guns, or working at a shooting range

- at a shooting range

 Reduce the risk of lead hazards by:

 Not letting children or pets play in bare soil around perimeter of house

 Covering bare soil with grass, mulch, gravel, sand or other landscaping materials

 Putting out doormats and remove shoes to not track lead dust into the home

 Maintaining good housekeeping

 Not wearing your work clothes home if you work with lead

 Washing your hands often

Cleaning up lead dust

- Correct lead hazards before starting any dust cleanup to prevent further contamination.
- While wearing disposable gloves, use rags or sponges to wet clean all horizontal surfaces in the house with any all-purpose cleaner mixed with warm water and clean the floor again.
- 3. Start at the rear of the home and work from ceiling to floor, working toward the front of the house.
- The recommended cleaning method is to use two buckets and a mop on floors. Fill Bucket #1 with a CLEANING SOLUTION and then fill Bucket #2 with clean RINSE water.
 - · Dip the mop in Bucket #1 and clean the floor
 - Dip mop into the Bucket #2 (rinse bucket), and then back into cleaning solution bucket (Bucket #1)
 - · Repeat above steps until all floors have been cleaned.
 - Dispose of water by pouring into toilet
- 5. During wet cleaning, replace rags, sponges and mop-heads frequently, and wash separately or dispose of them in plastic trash bags when



Because lead dust is so difficult to remove, leadcontaminated carpeting or rugs should be removed and replaced. If disposal is not an option, use a HEPA vacuum to clean the carpet first, followed by steam cleaning. Steam cleaning may need to be done more than once.



How can I protect myself and my family?

- Wash your hands and face before eating or drinking at work
- Don't smoke in the work area
- Wear proper protective equipment such as a fitted respirator and gloves when working around lead dust or fumes
- When done working for the day, shower at work if you can or immediately once you get home.
- Change into clean clothes and shoes at work before you go home
- If possible, wash your clothes at work. If not, wash work clothes separate from other clothes and run the empty washing machine again to rinse out lead
- Participate in your employer's lead screening program if you are at risk for lead poisoning
- Keep your work area and home clean by using a wet cloth to clean horizontal surfaces, a wet mop to clean floors, and a vacuum with a HEPA filter
- Use safe procedures or hire a professional when renovating a home built before 1978

For more information

If you would like more information regarding lead poisoning prevention, please contact us at:

Office of Environmental Health Hazards & Indoor Air

Nebraska Department of Health & Human Services 301 Centennial Mall South PO Box 95026 Lincoln, NE 68509-5026

(402) 471-0386 or 1-888-242-1100

www.dhhs.ne.gov/lead

Department of Health & Human Services



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What is lead poisoning?

ead is a toxic metal used in many industries and found in many consumer products. Lead poisoning can occur when lead builds up in the body. No amount of lead in the body is considered safe.

Am I at risk for lead exposures?

Many jobs and work activities involve lead. You may be at risk if you:

- Melt, cast, or grind lead, brass, or bronze
- Make ammunition, fire guns, or work at a shooting range
- · Work with scrap metal or electronics
- Scrape, sand, remove or handle lead-based paint or products painted with it
- Tear down or renovate old buildings or bridges
- Make or repair batteries, radiators, or automobiles
- Make or work with ceramics, jewelry, or stained glass

Some lead exposures are due to hobbies, including:

- · Shooting in indoor ranges
- Making bullets or fishing sinkers
- Making pottery, stained glass, or jewelry
- Home renovations and furniture refinishing

There are other less common sources of lead exposure in adults, such as imported candy and using alternative or folk medicines.



How can lead poisoning affect my health?

Lead exposures usually occur by swallowing lead dust or breathing in dust and fumes containing lead. Once it is in the body, it can be stored in your organs and bones where it can cause serious and permanent damage to your kidneys, brain and nervous system, cardiovascular system, reproductive system, and other parts of the body. Too much lead can even cause coma or death.

Lead exposures can cause:

- · High blood pressure
- · Decreased sex drive, infertility
- Digestive problems
- Difficulty concentrating
- Tiredness or weakness
- Hearing and vision problems
- Your risk of health damage increases with the amount of lead in your body and the length of time you have been exposed.

How do I know if I am exposed to lead?

A simple blood test can measure how much lead is in your blood, known as a blood lead level (BLL). If you think you are exposed to lead at work or at home, ask your doctor for a blood lead test. Scientists and doctors recommend that blood lead levels in adults be kept below 10 µg/dL (micrograms per deciliter), and levels should be kept below 5 µg/dL for women who are pregnant or may become pregnant.

What is take-home lead?

People who have jobs or hobbies that involve lead can bring lead dust into their home on work clothes, skin, or equipment. This is called 'take-home lead' and it can expose anyone who comes in contact with it. Take-home lead can even cause lead poisoning in children who live in or visit the house.

For more information on take-home lead, call 1-888-242-1100 or visit http://www.dhhs.ne.gov/lead



Medical Management Recommendations for Health Care Professionals



- . There is no safe level of lead in the blood
- · Any confirmed level of lead in the blood indicates child has been exposed to lead
- · Any elevated capillary test should be confirmed with a venous blood sample
- . The following are general guidelines and are adapted from the CDC

Childhood Blood Lead Testing & Follow-up Recommendations					
Blood Lead Test Result	Retest using Venous Blood to confirm within:	Recommended Actions based on BLL	Venous Retest Intervals—after recommended actions		
< 5 µg/dL	N/A	Provide lead education (dietary & environmental) Environmental assessment for pre-1978 housing Provide follow-up blood lead monitoring	Retest according to Blood Lead Screening Plan		
5 -9 µg/dL	1 – 3 months	Above Actions, plus: Complete history and physical exam Lab work: iron status, consider hemoglobin or hematocrit Refer to health department for environmental investigation Recommend lead hazard reduction in home Neurological, behavioral, and developmental monitoring Abdominal X-Ray (if particular lead ingestion is suspected with bowel decontamination	3 months for first 2-4 tests 6 - 9 months after BLL are declining		
10 - 19 μg/dL	1 week – 1 month*		1 - 3 months for first 2-4 tests** 3 - 6 months after BLL are declining		
20 - 24 μg/dL	1 week – 1 month*		1 - 3 months for first 2-4 tests** 1 - 3 months after BLL are declining		
25-44 μg/dL	1 week – 1 month*		2 weeks - 1 month for first 2-4 tests 1- 3 months after BLL are declining		
45 - 59 μg/dL	ASAP no later than 48 hours	Above Actions, plus: • Lab work: iron status, hemoglobin or hematocrit, free	Every 24 hours or as medically indicated		
60 - 69 µg/dL	ASAP no later than 24 hours	erythrocyte protoporphyrin Oral Chelation therapy. Consider hospitalization if leadsafe environment cannot be assured	Every 24 hours or as medically indicated		
≥ 70 µg/dL	Urgently as an emergency test	Hospitalize and commence chelation therapy (following confirmatory venous blood lead test) in conjunction with consultation from a medical toxicologist or a pediatric environmental health specialty unit Proceed according to actions for 45-69 µg/dL	Every 24 hours or as medically indicated		

^{*}The higher the BLL on the screening test, the more urgent the need for confirmatory testing
**Some case managers or PCPs may choose to repeat blood lead tests on all new patients within a month to ensure that BLL level is not rising more quickly than anticipated.

Sources of Lead	Occupations Involving Lead	Hobbies Involving Lead	Cultural Practices & Folk Medicines
Lead-based paint in poor condition Lead dust from deteriorated lead paint Contaminated soil from paint or pollution Some toys, imported candy, and cosmetics Some folk medicines Bringing lead home from work	Contractors who renovate or repair buildings Workers who sand, scrape or blast lead paint Recyclers of metal, electronics, batteries Manufacturers of bullets, ceramics & electronics Steel workers Firing range workers, gunsmiths, police officers Construction and demolition workers Foundries and scrap metal operations Bridge construction and repair Automobile repair	Stained glass Fishing sinkers Computer electronics Automotive repair Reloading bullets Soldering Artistic painting, jewelry making, and pottery glazing	Ayurvedic medicines Azarcon Daw Tway Bhasma Smrti Ba-baw-san Ghasard Greta

Definitions:

BLL: Blood lead level Testing: A blood test

Screening: Applying criteria in the Blood Lead Testing Plan to determine

Lead Hazard Reduction: Lead abatement and interim controls like paint stabilization, lead dust, control, cleaning, and addressing bare soil.

Lead Prevention Tips for Parents:

- 1) Keep it Clean: Wash children's hands often and wet wipe/wet dust surfaces to remove lead contamination
- 2) Make your home lead safe: Find and properly take care of sources of lead in the home
- 3) Healthy Diets: Provide regular meals and foods rich in iron, calcium, and Vitamin C
- 4) Medical Check-ups: Have child see PCP. If a BLL over 5 µg/ dL, make sure child is tested to ensure levels decline.

Contact Information:

Lead Poisoning Prevention Program Nebraska Dept of Health & Human Services 301 Centennial Mall South PO Box 95026 Lincoln, NE 68509

Phone: 402-471-0386 or 1-888-242-1100 Fax: 402-471-8833 Email: dhhs.hhia@nebraska.gov

Website: http://www.dhhs.ne.gov/lead

Revised: 8/2012

Numbers of Children Tested

Title 173 of the Nebraska Administrative Code regarding Communicable Diseases lists all blood lead tests as reportable to the Department. This data is submitted to the Department either electronically from health care providers through the Nebraska Electronic Disease Surveillance System (NEDSS), or is sent via mail or facsimile to be manually entered by program staff into the Systematic Tracking of Elevated Lead Levels and Remediation (STELLAR) database. These two datasets are then combined, rid of duplicate entries, and reviewed for missing information before data analysis.

Number of children age 0-72 months tested October 1, 2012, through September 30, 2013: 31,771

Number of children tested with a confirmed blood lead level of 5 micrograms per deciliter or higher: 689

Summary

Due to the change in lead levels from 10 micrograms per deciliter to 5 in 2012, the fifteen months of data collected since the law has been in effect is insufficient to draw final conclusions.