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NvCLPPP

Nevada Childhood Lead Poisoning Prevention Program

Case Management Guide for Cases of Childhood Lead Exposure in Nevada

About NvCLPPP

The Nevada Childhood Lead Poisoning Prevention Program (NvCLPPP) aims to eliminate one of the most preventable health outcomes in children across the globe: lead poisoning.

Our program is housed within the Nevada Institute for Children's Research and Policy, a research center based out of the UNLV School of Public Health.

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List of Acronyms

Acronym	Definition
ASQ	Ages & Stages Questionnaire®
BLL	blood lead level
BLRV	blood lead reference value
CDC	Centers for Disease Control and Prevention
CHW	Community Health Worker
ELR	Electronic Laboratory Reporting
CSTE	Council of State and Territorial Epidemiologists
EPA	United States Environmental Protection Agency
GFAAS	graphite furnace atomic absorption spectrometry
HCP	healthcare provider
ICP-MS	inductively coupled plasma mass spectrometry
LHD	local health department
LIRA	Lead Inspection and Risk Assessment
LRA	Lead Risk Assessor
MCO	Managed Care Organization
NRS	Nevada Revised Statutes
NvCLPPP	Nevada Childhood Lead Poisoning Prevention Program
SNHD	Southern Nevada Health District

Glossary

Term	Definition
blood lead level	The amount of lead present in a person's blood, usually measured in micrograms per deciliter (µg/dL). A BLL of 3.5 µg/dL or higher is considered to be above the CDC's BLRV and is eligible for case management.
blood lead test	A laboratory test used to measure the concentration of lead in a person's blood. The test can be performed using either a capillary or venous blood sample.
capillary blood sample	Blood sample taken from a fingerstick or heel stick. It is a quick and minimally invasive way to measure lead levels, but it may be less accurate than a venous sample. It's often used for screening purposes in situations where a venous sample may not be easily obtained. Blood lead tests above the BLRV that use a capillary blood sample should ideally be confirmed with a venous blood lead test, but in some cases, two capillary results collected within the recommended timeframe may be used for confirmation based on the Council of State and Territorial Epidemiologists (CSTE) case definitions.
case closure	Official end to a case after the necessary interventions have been completed, and the child's BLL has reduced to below the BLRV, OR due to administrative reasons.
case manager	A qualified professional (e.g., public health nurse, health educator, social worker, environmental health specialist, etc.) with appropriate knowledge and/or training to assess, facilitate, plan, and serve as an advocate for the child's health needs.
confirmatory testing	This is the diagnostic blood lead test, typically a venous blood sample, that is done after an initial capillary blood lead test result above the BLRV. This testing helps confirm the need for intervention and further monitoring.
confirmed case	A confirmed case of lead poisoning is defined by either: 1. Lead detection in a venous blood sample with a level at or above 3.5 µg/dL, tested using GFAAS or ICP/MS. 2. Lead detection in two capillary blood samples, each at or above 3.5 µg/dL, collected within 12 weeks of each other.
environmental investigation	AKA lead risk assessment; an on-site investigation to determine the presence, type, severity, and location of lead-based paint hazards (including lead hazards in paint, dust, and soil) and provides suggested ways to control them. Risk assessments must be performed by a certified risk assessor.

follow-up testing	After confirmatory testing, follow-up testing is performed to monitor changes in the blood lead level over time. This is done to assess whether the child's lead levels are decreasing in response to treatment or environmental interventions.
healthcare provider	Licensed professional who is responsible for diagnosing, treating, and managing patients potentially affected by lead exposure. This can include a wide range of healthcare professions, such as: pediatricians, physician assistants, and nurses.
plan of care	A detailed, individualized plan outlining the necessary medical treatment, interventions, and follow-up actions. The plan may include steps like removing the child from the lead exposure source, nutritional recommendations (e.g., increasing iron and calcium intake to reduce lead absorption), and regular monitoring through follow-up blood tests.
risk assessor	A trained professional (often an environmental health specialist) who evaluates a person's environment for potential sources of lead exposure, such as lead-based paint, contaminated soil, water, or consumer products.
suspected case	A suspected case of lead poisoning is defined by either: 1. Lead detection in a single capillary blood sample at or above 3.5 µg/dL. 2. Lead detection in two capillary blood samples, each at or above 3.5 µg/dL, collected more than 12 weeks apart.
venous blood sample	Blood sample taken directly from a vein, usually in the arm. Considered the "gold standard" for measuring blood lead levels because it provides a more accurate and reliable measurement compared to capillary blood samples. Venous blood samples are typically used for confirming a child's BLL.
µg/dL	Micrograms per deciliter; a unit of measurement; most commonly used to express the concentration of lead in the blood.

Purpose of This Document

This document provides guidance for conducting case management services for children with a **blood lead level (BLL)** above the **Centers for Disease Control and Prevention (CDC) blood lead level reference value (BLRV)**. These guidelines are primarily based on the CDC's standard of care for managing childhood lead exposure, including the updated BLRV and associated follow-up intervention recommendations. Establishing clear case management protocols improves service delivery, maintains accountability, and fosters positive outcomes. Additionally, having a standardized set of protocols serves as a vital resource for onboarding and supporting new staff, ensuring they are well-prepared to provide high-quality care and support to families within the program.

In this document, case management focuses on providing foundational support for all identified cases of lead exposure. It involves delivering general education about lead exposure and its risks, offering guidance on steps families can take to reduce lead hazards, connecting them with relevant resources and referrals in the community, conducting a detailed interview with the family to understand their unique circumstances, assisting with scheduling an environmental assessment of the child's home, and coordinating follow-up actions to effectively mitigate lead exposures. In summary, this document outlines key procedures, responsibilities, and best practices to ensure that lead poisoning cases are provided a consistent standard of care across Nevada. Steps outlined in this document can be adapted to the needs and capacity of the **local health department (LHD)**.

Section 1: Introduction

Childhood lead exposure continues to be a public health issue across the globe. Lead exposure can cause severe and permanent health effects in children, including developmental delays, cognitive impairments, and behavioral issues. Historically, the most common source of lead exposure for children living in the United States is lead-based paint found in older homes; however, it is becoming increasingly common for children to be exposed to lead from certain foods and consumer products.

In 2021, CDC lowered the BLRV from 5 **µg/dL** to **3.5 µg/dL**. The BLRV is ***not a health-based threshold nor a toxicity threshold*** that defines an acceptable range of lead in the blood because **there is no safe level of lead in the blood**. Instead, the BLRV is used to:

- Identify children with BLLs higher than most children in the United States
- Initiate follow-up actions to reduce the adverse health effects of lead exposure
- Eliminate any sources of lead exposure within the child's environment

Case Classification and Follow-up Testing

A **blood lead test** is the only way to know for certain if a child has been exposed to lead. Blood lead tests can be done with either a capillary or venous sample, and the results will determine the case classification and appropriate case management actions. The State of Nevada uses the classifications for confirmed and suspected cases listed below. However, it is important to note that LHDs may initiate case management with a suspected case at their discretion.

Confirmed

- Detection of lead in a **venous blood sample**, tested by **graphite furnace atomic absorption spectrometry (GFAAS)** or **inductively coupled plasma mass spectrometry (ICP/MS)**, that is at or above the BLRV of 3.5 µg/dL.
- Detection of lead in two **capillary blood samples** at or above the BLRV of 3.5 µg/dL collected within 12 weeks of each other.

Suspected

- Detection of lead in a single capillary blood sample at or above the BLRV of 3.5 µg/dL.
- Detection of lead in two capillary blood samples at or above the BLRV of 3.5 µg/dL that are collected after 12 weeks of each other.

The sample type and result will also determine when to get follow-up tests. Tables 1 and 2 reflect the **confirmatory** and follow-up testing schedules as recommended by the CDC. These guidelines help determine when confirmatory and follow-up BLL testing should occur for children with a BLL at or above the BLRV.

Table 1: CDC's Recommended Confirmatory Venous Sample Schedule

Capillary BLL (µg/dL)	Venous Confirmation
<3.5	No confirmation test needed.
≥3.5–9	Within 3 months
10–19	Within 1 month
20–44	Within 2 weeks
≥45	Within 48 hours

Table 2: CDC's Recommended Follow-up Testing Schedule

Venous BLL (µg/dL)	Early Follow-up Tests*	Later Follow-up Tests**
3.5–9	3 months***	6–9 months
10–19	1–3 months***	3–6 months
20–44	2 weeks–1 month	1–3 months
≥45	As soon as possible	As soon as possible

*Early Follow-up Tests refer to the BLL tests recommended by the CDC after the initial venous BLL. These follow-up tests are typically conducted over the course of several months to monitor changes and inform case management. Depending on the child's BLL, the recommended schedule may include 2 to 4 follow-up tests during this period.

**Later Follow-up Tests refer to the BLL tests once the child's BLL starts to decline.

***Some case managers or healthcare providers may choose to repeat blood lead tests on all new patients within a month.

Section 2: Overview of Case Management

The ultimate goal of case management is to ensure that children and their families receive appropriate, timely, and comprehensive medical, environmental, and educational follow-up to reduce their BLL, reduce their exposure to lead, and improve their health. All case management should be child- and family-centered.

A multidisciplinary approach is essential to addressing the complex needs of children exposed to lead. Successful case management is based on ongoing communication and collaborative problem-solving between the case management team, including but not limited to a **case manager**, the child's parents/guardians, **healthcare providers (HCPs)**, **lead risk assessors (LRAs)**, and others.

Note: Successful case management relies on a solid understanding of lead exposure risks, best practices, and available support tools. New case managers are encouraged to review the recommended resources listed in Appendix A to strengthen their knowledge and skills.

Role of the Case Manager

The case manager plays a central role in case management by assessing, coordinating, overseeing, and advocating for the individual needs of children and their families. In general, the case manager is responsible for:

- Assessing factors that may impact the child's BLL.
- Educating families on lead exposures and how to prevent or reduce them.
- Developing a tailored **plan of care** and adjusting it as needed.
- Referring to appropriate community, environmental, and medical services.
- Coordinating services and following up on referrals
- Collaborating and communicating with all members of the case management team
- Reviewing environmental lead assessment results and working with families to understand findings, prioritize recommended actions, and navigate remediation options as appropriate
- Documenting and evaluating outcomes of the interventions
- Overseeing the case until closure

Tips for Providing Case Management

A case manager may encounter common challenges executing case management activities. Table 3 outlines some strategies the case manager can consider when communicating with parents or guardians. This is a non-exhaustive list and should be adapted based on the family's specific needs, cultural context, and the case manager's professional judgement.

Table 3: Tips for Providing Case Management

Tip	Description
Build rapport with the family	The parent/guardian does not know you, so naturally they may not trust you. Build rapport with the parent/guardian via the child's HCP by asking the HCP to inform them about the LHD's involvement in the case. When introducing yourself, state your role and organization. Emphasize that you are working in tandem with the child's HCP and are there to help.
Be culturally sensitive and nonjudgmental	Aim to be culturally sensitive and nonjudgmental. Increase your familiarity with the customs and cultures of the family and tailor your communication to be respectful and inclusive.
Use an interpreter (if necessary)	Communications should be carried out in the parent/guardian's preferred language. If nobody on the case management team can serve as a translator, consult with translation services
Be respectful	Parents may refuse services partially or altogether. Respect their decision, but make sure to leave them with your contact information should they change their mind in the future.
Make complex information easy to understand	Use simple, clear language to explain diagnoses, treatments, and plans. Use visual aids such as brochures, diagrams, or charts to help explain information.
Address fears and concerns	Answer any questions from the family. If you do not know the answer, get back to them with an answer promptly. Make sure to show empathy and understanding when addressing concerns. This can be a scary time for families – acknowledge their fears.
Make the family feel heard	Involve the family in their plan of care: Discuss their preferences and concerns. Encourage families to ask questions. Ensure they feel comfortable seeking clarification.

Recommended Case Management Actions

The BLL and type of test will determine the case management plan of action and BLL retest schedule. This section provides a step-by-step overview of recommended actions for both suspected and confirmed cases of lead exposure, organized by BLL range.

Each set of actions aligns with CDC guidance and includes general timeframes for response, which account for both working and non-working days (e.g., weekends or holidays). These detailed instructions are designed to support new and experienced case managers in delivering consistent, high-quality care across varying levels of lead exposure.

Note: Quick-reference checklists on how-to complete these steps can be found in Appendix B.

Suspected Case: Capillary BLL ≥3.5 µg/dL

Suspected Case: Capillary BLL ≥3.5 µg/dL

*Within **1 month**, complete the following steps:*

1. **Notify the parent/guardian via phone call or letter.**
    - Discuss the child's BLL result and explain what it means.
    - Provide clear instructions about the need for a confirmatory venous test.
        i. Reference the CDC's recommended timeframe for confirmatory testing (Table 1).
2. **Follow-up on confirmatory BLL testing.**
    - Monitor completion of the confirmatory venous test.
    - If the test is not completed within the recommended timeframe, follow up with the parent/guardian or HCP to provide support and reinforce the importance of testing.

Confirmed Case: Venous BLL 3.5-19 µg/dL

*Within **1 month**, complete the following steps:*

1. **Contact the child's HCP.**
    - Confirm or collect any missing demographic or case details.
    - Offer to send educational materials from the Nevada Childhood Lead Poisoning Prevention Program (NvCLPPP) that explain lead exposure risks, health effects, and prevention strategies.
2. **Coordinate and conduct a case management visit (either on-site or via phone).**
    - Contact the child's parent/guardian via phone call to discuss the BLL result and its health implications.

- Schedule an in-person or phone-based visit with the family at their primary place of residence or mutually agreed-upon location.
- Complete the Childhood Lead Investigation Questionnaire (CLIQ) to guide a discussion about the child's environment and potential sources of lead exposure, including paint, soil, household items, or occupations and hobbies.
- Use the information gathered from this visit to provide tailored recommendations, develop an appropriate care plan, and refer to necessary services to help reduce lead exposures.
    - Deliver foundational lead education, including:
        - ❖ Common sources and routes of lead exposure.
        - ❖ Health effects of lead, especially in young children.
        - ❖ Practical tips for reducing exposure in the home.
        - ❖ Nutritional strategies to reduce lead absorption, with an emphasis on foods rich in iron and calcium.
    - Provide follow-up testing recommendations, referencing the CDC's follow-up schedule (Table 2).
    - Refer the family to relevant services, as appropriate, including:
        - ❖ The child's primary care provider for medical follow-up.
        - ❖ Early intervention or early childhood development programs.
        - ❖ WIC or other nutritional counseling services.
        - ❖ Housing or social service agencies that may provide additional support.
    - Offer to send printed or digital educational materials from NvCLPPP.

3. **Ensure completion of follow-up BLL testing.**
    - Monitor whether the follow-up BLL test is completed within the recommended timeframe.
        - If the test is not completed, follow-up with the parent/guardian or HCP to identify and address any barriers.
4. **Arrange on-site environmental investigation, as necessary.**
    - Coordinate with the environmental health team to schedule an environmental assessment of the child's home and any other regularly visited locations (e.g., daycare, relative's home).
    - Ensure the investigation includes assessment of paint, dust, soil, and potential consumer product sources, as applicable.
5. **Continuously implement and adjust the case management plan.**
    - Collaborate with the family, HCP, and environmental health professionals to create a case management plan tailored to the child's exposure risks and family circumstances.
        - Include all necessary referrals based on the needs assessment and investigation findings.
    - Maintain regular follow-up with the family (e.g., monthly), either in-person or by phone, to:

- Monitor the child's BLL trends.
- Reassess ongoing risks and barriers.
- Provide continued education and support.
- Troubleshoot barriers to care, such as access to referred services or medical follow-ups.

- Update the case management plan as new information becomes available or family needs evolve (e.g., modification of referrals, adjustment to education strategies, or coordination of additional services).
- Document all interactions, reassessments, and plan adjustments in the case record to ensure continuity and accountability.

Confirmed Case: Venous BLL 20-44 µg/dL

*Within **1 week**, complete the following steps, in addition to all actions listed for 10 to 19 µg/dL:*

6. **Contact the child's HCP to discuss a medical management plan.**
    - Discuss the need for a full medical history and physical exam to assess for signs and symptoms associated with lead exposure.
    - Review whether an abdominal x-ray may be appropriate to check for ingested lead-containing objects, such as paint chips or other foreign bodies.
7. **Consult the Region 9 Pediatric Environmental Health Specialty Unit (PEHSU) for additional support and guidance.**
    - Reach out to PEHSU to consult on complex pediatric lead cases and obtain recommendations for medical management, environmental considerations, or family education.
        - **Email:** pehsu@ucsf.edu
        - **Phone:** (415) 514-0878
        - **Toll-Free:** (866) 827-3478
    - Document the consultation and incorporate relevant recommendations into the child's case management plan.

Confirmed Case: Venous BLL ≥45 µg/dL

*Within **2 days**, complete the following steps, in addition to all actions listed for 20 to 44 µg/dL:*

8. **Refer the child for chelation treatment.**
    - Contact the child's HCP to discuss the urgency of treatment and ensure they are aware of the child's BLL.
    - Recommend consultation with a medical toxicologist to determine the most appropriate chelation protocol.
    - Coordinate communication between the HCP and any specialists involved in the child's care, as appropriate.

- Ensure the family understands the purpose of chelation therapy and the importance of medical follow-up.

9. **Facilitate relocation to lead-safe housing prior to chelation therapy.**
    - Collaborate with the family, HCP, and housing agencies to identify temporary or permanent housing that is verified lead-safe.
    - Emphasize that chelation should not be initiated until the child is in a lead-safe environment to prevent continued exposure.
    - Provide referrals and support for accessing emergency housing assistance if needed.

Section 3: Receiving the Case

Case management begins when the LHD is notified of a suspected or **confirmed case** of lead exposure.

Notification of Case

LHDs receive capillary and venous BLL test results from laboratories and HCPs through **Electronic Laboratory Reporting (ELR)**, fax, or the online provider disease reporting portal.

All reported BLL test results are entered into the LHDs surveillance system. Suspect and confirmed cases should be promptly assigned to a case manager to initiate case management. The case manager should be notified of the case via the LHD's established disease surveillance system.

Review of Case Information

After receiving notification of a case, the case manager should review the BLL report and attempt to make the first phone call to the child's HCP and parent/guardian **as soon as possible.**

By law, HCPs are required to report certain variables with a child's blood lead test result (**Nevada Revised Statutes (NRS)** 442.700). Based on the available report information, the case manager should determine what information they already have and what they need to confirm with the HCP (Table 4).

Table 4: Important Case Information

Information	Already Have	Confirm with HCP
Name of Ordering Healthcare Provider	☐	☐
Clinic Name of Ordering Healthcare Provider	☐	☐
Healthcare Provider/Clinic Contact Information	☐	☐
Parent/Guardian's Name*	☐	☐
Parent/Guardian's Phone Number*	☐	☐
Child's Full Name (Last, First, Middle)	☐	☐
Child's Date of Birth	☐	☐
Child's Sex	☐	☐
Child's Race	☐	☐
Child's Ethnicity	☐	☐
Child's Address	☐	☐
Child's Medicaid Status*	☐	☐
Child's Blood Lead Level (µg/dL)	☐	☐
Date of Blood Sample Collection	☐	☐
Type of Blood Sample Collection (Venous or Capillary)	☐	☐
Date Blood Sample Analyzed by Lab*	☐	☐
Date Blood Sample Result Reported to LHD*	☐	☐

*Not required by NRS 442.700, but might be useful information

Section 4: Contacting the Provider

HCPs are critical to successful case management since they can share important case information, conduct follow-up BLL tests, and provide medical treatment as necessary. The case manager will contact the HCP before reaching out to the child's parent/guardian. It is expected that the case manager will work closely with the HCP until **case closure**.

Initial Call

The case manager will attempt to contact the child's HCP within **2 business days** of receiving the case. If the HCP's contact information or clinic details are not included in the case report, conduct a quick internet search to obtain the clinic's phone number and address.

During the initial call to the HCP, the case manager should:

1. **Introduce themselves and explain the purpose of the call.**
    - Provide your name, title, and the agency or organization you represent.
    - State that you are contacting them regarding a child with a BLL above the BLRV.
2. **Confirm or collect essential case information.**
    - Verify details such as child's name, date of birth, and race/ethnicity.
        - Refer to Table 4 for specific case information to confirm.
3. **Review the child's clinical care plan and next steps.**
    - Provide recommendations for confirmatory or **follow-up testing**, as appropriate.
        - Refer to Tables 1-2 for CDC's recommended BLL testing schedules.
    - Discuss the importance of monitoring the child's health and development over time.
    - Clarify the HCP's role in ongoing medical follow-up and developmental screening.
4. **Offer to provide educational materials.**
    - Let the HCP know that NvCLPPP handouts and materials are available for distribution to families.
    - Offer to send materials via email or mail (see Table 5 for available resources).
5. **Request assistance with parent engagement, as appropriate.**
    - If feasible, ask the HCP to inform the child's parent/guardian that someone from the health department will be reaching out.
        - This can build trust and increase responsiveness when the case manager makes contact.

Table 5: NvCLPPP Educational Materials for HCPs

Material Type	Educational Material Name
Flyers	• Lead and Pregnancy: Keep Baby Safe (English, Spanish) • How Lead Affects Children (English, Spanish) • Don't Let Lead Hitch a Ride Home (English, Spanish) • 5 Reasons to Test for Lead (English) • Nevada Lead Exposure Risk Index (English) • Kajal Can Poison Children (English, Dari, Pashto) • Tips to Clean Lead Chips and Dust in Your Home (English, Spanish) • Lead Dust in Imported Mini-Blinds (English, Spanish)
Trifolds	• Childhood Lead Poisoning (English, Spanish) • After the Lead Test (English, Spanish)
Posters	• Is Your Child Lead Poisoned? (English, Spanish) • Let Life Start Lead Free (English, Spanish) • Stop! Leave the Lead Behind (English, Spanish)

Note: NvCLPPP Educational Materials are available here.

Follow-up Communications

After the initial call, the case manager and HCP may stay in contact to update each other on the case – via an agreed upon form of communication. The HCP can provide updates on the child's medical management and health assessments (including follow-up blood lead tests), while the case manager can provide updates on the child's current status, case management activities, planned interventions, and progress toward goals.

The case manager should also follow-up with the HCP regarding noncompliance issues, such as failure to perform or order a confirmatory or follow-up blood lead test per the CDC schedules. If the family does not follow-up with the case manager's suggested services, it might also be worthwhile to request that the HCP make a formal referral.

The case manager should also serve as a resource for the child's HCP. When needed, the case manager may provide medical management guidance (according to CDC recommendations) and share resources for the HCP at the local and national levels.

Unsuccessful Call Attempts to HCP

The case manager should make at least one additional attempt on a different day and time to connect with the HCP before contacting the parent/guardian if one of the following are true:

1) the HCP is unavailable,
2) the HCP is unreachable, and/or
3) the clinic does not answer.

For each unsuccessful call attempt, the case manager should leave a voicemail with the reason for the call and callback information. If necessary, the case manager should attempt to connect with other medical staff (such as a nurse or medical assistant) who can provide information about the case.

After two unsuccessful attempts to reach the HCP, the case manager should proceed with contacting the child's parent/guardian.

Section 5: Providing Case Management

Parents/guardians play a major role in case management because they are able to closely monitor their child's daily health and behavior. They are critical in ensuring timely follow-up on services, identifying potential sources of lead exposure in the home, and implementing strategies to reduce those risks. Additionally, they are key advocates for their child's health and well-being and may provide the case manager valuable insights.

Case Management Visits

Case management visits are the optimal venue for assessing both the child and their environment. These visits offer a unique opportunity for the case manager to provide tailored health education, build rapport with the parent/guardian, and promote lead prevention and overall health.

Ideally, these visits will occur at the child's primary place of residence. However, if the family is not comfortable with meeting at home initially, case managers should offer an alternative location (e.g., clinic, public space) or conduct the visit over the phone. Once trust is established, a home visit at the residence may be arranged.

While there is no required minimum number of visits before case closure, at least one in-person visit is strongly encouraged when feasible.

Before conducting an in-person visit, case managers must:

- Follow agency safety protocols for in-home engagement.
- Obtain verbal or written consent in accordance with agency policy.
- Coordinate with the family to schedule a mutually agreeable date, time, and location.

For a visit, case managers should:

1. **Initiate contact with the parent/guardian.**
    - Introduce yourself, your role, and the organization or agency you represent.
    - Confirm you are speaking with the child's parent/guardian.
    - Confirm the child's full name and date of birth with the parent/guardian.
    - Explain the role of the LHD in responding to the child's BLL.
    - Clarify that your outreach is in coordination with the child's HCP.
    - Gather any missing demographic or contact details.
        i. Refer to Table 4 for guidance.
    - Coordinate a case management visit, either in-person or over the phone.
2. **Discuss the child's BLL result and what it means.**
    - Explain what a blood lead level (BLL) is and how it is measured (e.g., in micrograms per deciliter, µg/dL).

- Emphasize that no level of lead is considered safe in children.
- Describe the health implications, such as impacts on a child's development and behavior.
- Clarify that even low levels of lead exposure can impact a child's development and behavior.
- Reassure the parent/guardian that follow-up actions are focused on reducing risk and supporting the child's development.
- Invite the parent/guardian to ask questions or express any concerns about the test result or next steps.

3. **Review follow-up testing recommendations based on the child's BLL.**
    - Refer to Tables 1-2 for CDC's recommended BLL testing schedules.
    - Discuss the importance of tracking BLL trends over time to evaluate progress.
4. **Complete the CLIQ with the parent/guardian to help identify potential sources of lead exposure in the child's environment.**
    - As part of the CLIQ, ask the parent/guardian what they believe may be the source of lead exposure.
    - If the family identifies any suspected sources (e.g., peeling paint, soil, imported products), ask if they are willing to show these areas/items during the visit.
    - Use responses from the CLIQ and the visit to determine possible sources of lead exposure in the child's environment.
5. **Provide foundational health education.**
    - Give a brief overview of childhood lead poisoning, including:
        i. Common sources and routes of lead exposure.
        ii. Health effects of lead, especially in young children.
        iii. Practical tips for reducing exposure in the home.
        iv. Nutritional strategies to reduce lead absorption, with an emphasis on foods rich in iron and calcium.
    - Offer to send printed or digital educational materials from NvCLPPP.
6. **Refer the family to appropriate programs and services based on the CLIQ and needs assessment.**
    - Offer referrals based on the child's age and family's needs, which may include:
        i. The child's primary care provider for medical follow-up.
        ii. Early intervention or early childhood development programs.
        iii. WIC or other nutritional counseling services.
    - Housing or social service agencies that may provide additional support.
7. **Discuss the opportunity to complete an environmental Lead Inspection and Risk Assessment (LIRA) of the child's home and any other locations the child visits frequently (e.g., childcare, family members' home).**
    - Explain the purpose of the assessment and what the process involves.
    - If the family is receptive, help coordinate with the environmental health team.
8. **Continuously implement and adjust the case management plan.**
    - Collaborate with the family, HCP, and environmental health professionals to

create a case management plan tailored to the child's exposure risks and family circumstances.
    i. Include all necessary referrals based on the needs assessment and investigation findings.
- Maintain regular follow-up with the family (e.g., monthly), either in-person or by
- phone, to:
    i. Monitor the child's BLL trends.
    ii. Reassess ongoing risks and barriers.
    iii. Provide continued education and support.
    iv. Troubleshoot barriers to care, such as access to referred services or medical follow-ups.
- Update the case management plan as new information becomes available or family needs evolve (e.g., modification of referrals, adjustment to education strategies, or coordination of additional services).
- Document all interactions, reassessments, and plan adjustments in the case record to ensure continuity and accountability.

Education

Education is a critical component of case management because it helps equip families with the knowledge they need to take immediate and effective steps to reduce lead exposures in their child's life. Providing education empowers families to understand the risks of lead exposure and make decisions to protect their health and safety. Table 6 outlines key topics to cover and suggested talking points for each. The case manager may also use printed materials or videos to assist in the family education process.

Table 6: Health Education Talking Points

Topic	Talking Points

The BLL Result
 	
(Appendix C)
	• Discuss what the child's BLL result is and what it means.
	• A BLL is the amount of lead found in a person's blood, measured in micrograms per deciliter.
	  ○ A microgram is one-millionth of a gram, and a deciliter is one-tenth of a liter.
	  ○ So, a BLL of 5 micrograms per deciliter means there is 5 micrograms of lead in one-tenth of a liter of the child's blood.
	  ○ While this may seem like a small amount, these low levels can still be harmful, especially in young children.
	• Discuss any specific thresholds: e.g., a BLL greater than or equal to 3.5 µg/dL requires action to reduce lead exposure.
	• Provide a recommended timeline for follow-up BLL tests.

Pathways of Exposure	• Lead primarily enters the body through ingestion (where we eat the lead) or inhalation (where we breathe in the lead). • Ingestion is the most common pathway of exposure and can happen when a child puts their hands or objects in their mouth due to their typical hand-to-mouth behavior. • Lead can cross the placenta during pregnancy, which can expose the baby to lead before birth. • In some cases, lead can be passed through breastmilk, especially if the lactating person has a BLL above the BLRV.
Sources of Exposure (Appendices D and E)	• Common sources include lead-based paint typically found in homes built before 1978 or lead-contaminated dust, soil, or water. • Some food products and spices may also contain lead, especially items that are imported from other countries. • Traditional or cultural medicine and cosmetics may also contain lead, such as: ayurvedic medicines, traditional Chinese medicines, kohl, and sindoor. • Certain children's toys and jewelry may contain lead – typically items that are metallic, white, bright yellow, or red. • Family members' jobs and hobbies can unintendedly bring lead home on hair, skin, clothes, or shoes.

Health Effects	• Lead can affect brain development by causing IQ loss, learning difficulties, behavioral issues, and slowed growth. • Early intervention helps reduce the risk of these health effects – regular BLL monitoring is vital.
Nutrition (Appendix F)	• Lead likes to mimic both calcium and iron in the body, so it is important to maintain a diet that is calcium- and iron-rich. • An empty stomach can absorb lead more readily – ensure the child eats meals and snacks regularly throughout the day.
Cleaning Practices and Personal Hygiene (Appendix G)	• Wet cleaning methods, like mopping or wiping with damp cloths, can help trap lead dust. • Recommend regularly cleaning high-traffic areas, windowsill, and floors. • Avoid dry sweeping or vacuuming carpets unless using a HEPA filter. • Wash hands with soap and water before eating, after playing outside, and before bedtime. • Regularly clean toys, pacifiers, and bottles to remove any potential lead dust.

Lead Investigation Questionnaire

NvCLPPP's CLIQ goes into detail about potential sources of lead exposure in the child's environment, the child's behaviors, and the hobbies and occupations of other members in the home. Answers are obtained from the child's primary parent/guardian and will inform the case management plan of care and **environmental investigation**.

If there is an environmental health team, then the case manager should share a copy of the completed LIQ for them to review prior to the environmental investigation. If possible, complete the questionnaire in-person at the child's primary residence since observations can help supplement answers on the questionnaire.

Child Assessments

The CLIQ includes questions that provide a basic assessment of the child's nutritional, health, developmental, and social history. The case manager may opt to conduct a more thorough assessment of the child's development by administering the appropriate **Ages & Stages Questionnaire® (ASQ)**. The ASQ is a parent-completed questionnaire used to assess a child's development in key areas, including communication, gross motor, fine motor, problem-solving,

and personal-social skills. The case manager does not need to be a physician to administer the ASQ.

Case managers should receive appropriate training before administering developmental screening tools like the ASQ. Screening results should be documented according to agency protocols. If the screening indicates potential developmental concerns, case managers should make timely referrals to appropriate services for further evaluation and intervention, in line with CDC recommendations.

The case manager should determine if the child requires further developmental and behavior assessments and make the appropriate referrals. If the case manager is qualified to administer certain assessments, then they may do so.

Link to Services

The case manager is responsible for connecting the family with services and resources available at the local, state, and national levels, as appropriate. The need for the following types of support should be assessed and revisited throughout the case:

- Developmental evaluation and early intervention services.
- Nutrition counseling or food support programs.
- Transportation services.
- Access to ongoing source of healthcare.
- Financial assistance for lead hazard reduction work in the home.
- Blood lead testing for pregnant women and other children in the household.

The following section outlines commonly used community-based and statewide resources available to families in Nevada. These examples are not exhaustive, and case managers are encouraged to stay familiar with local programs and update their knowledge regularly to best meet the needs of the families they serve.

Developmental & Educational Services

Nevada Early Intervention Services (NEIS)
NEIS provides services for **children under age 3** who may have developmental delays or conditions that could affect their development, including a BLL above the BLRV. In Nevada, children with a BLL above the BLRV are eligible for referral to early intervention services. These services may include evaluations, family meetings, and early intervention planning.

Statewide Referrals

- Phone: (800) 522-0066
- Email: ProjectAssist@dhhs.nv.gov
- Website: Nevada DHHS Early Intervention Programs

Regional Offices

- Carson City: (775) 687-0101
- Elko: (775) 753-1214
- Ely: (775) 289-1622
- Las Vegas: (702) 486-9200
- Reno: (775) 688-1341
- Winnemucca: (775) 623-6593 ext. 7

Child Find Department

Child Find is a program within each Nevada school district that identifies and evaluates **children age 3 and older** who are not yet enrolled in school and may have developmental delays or disabilities. These evaluations determine whether a child qualifies for inclusive education services.

Children with a BLL above the BLRV may be referred to Child Find for an assessment of possible developmental impacts from lead exposure. Each school district manages its own Child Find program, thus referral procedures may vary. Case managers should contact the school district directly or visit its website to confirm the appropriate steps for submitting a referral. For the most current contact information, refer to the Local School and District Information page.

- Carson City: (775) 283-2350 | Carson City School District
- Churchill: (775) 423-5187 | Churchill County School District
- Clark: (702) 799-7463 | Clark County School District
- Douglas: (775) 392-2121 | Douglas County School District
- Elko: (775) 753-8646 | Elko County School District
- Esmeralda: (775) 485-3215 [M,W 7:30AM to 4PM] or (775) 572-3250 [T, Th 7:30AM to 4PM] | Esmeralda County School District
- Eureka: (775) 237-5700 | Eureka County School District
- Humboldt: (775) 623-8128 | Humboldt County School District
- Lander: (775) 635-2886 | Lander County School District
- Lincoln: (775) 728-8000 | Lincoln County School District
- Lyon: (775) 463-6800 | Lyon County School District
- Mineral: (775) 945-2403 | Mineral County School District
- Nye: (775) 751-4015 | Nye County School District
- Pershing: (775) 273-5099 | Pershing County School District
- Storey: (775) 847-0983 | Storey County School District
- Washoe: (775) 327-0685 | Washoe County School District
- White Pine: (775) 289-4851 | White Pine County School District

Healthcare & Insurance Support

Nevada Medicaid & Managed Care Organization (MCO) Services

Families enrolled in Nevada Medicaid may be eligible for additional support services through their MCO. These services may help address medical, housing, nutritional, or other social needs that affect the child's health.

Case managers should ask which MCO the family uses and encourage them to contact the MCO's member services line for help accessing available programs. Referrals to services like care coordination, community health workers (**CHWs**), rental or utility assistance, and nutrition support may be available.

MCO Member Services

- Anthem Blue Cross and Blue Shield: (844) 396-2329
- Molina Healthcare: (833) 685-2102
- SilverSummit Healthplan: (844) 366-2880
- UnitedHealthcare Health Plan of Nevada: (800) 962-8074

Nevada Health Link

Nevada Health Link is the state's official health insurance marketplace. It helps individuals and families shop for and enroll in affordable health coverage if they are not eligible for Medicaid or other programs. Case managers can share this resource with families who may need help accessing health insurance for their child's ongoing medical care and follow-up testing.

Contact Information

- Phone: (800)547-2927
- Website: Nevada Health Link

Nutrition & Family Well-Being

Women, Infants, and Children (WIC)

WIC is a federally funded nutrition program that provides nutritious foods, nutrition education, breastfeeding support, and referrals to health and social services for eligible families. In Nevada, WIC services are available to pregnant and postpartum persons as well as children under age 5 who meet income guidelines.

WIC staff can help families understand the role of nutrition in reducing lead absorption; create meal plans rich in iron, calcium, and vitamin C (which are protective against lead); and connect to other resources.

Statewide WIC Contact

- Phone: (800) 863-8942

- Website: Nevada WIC

Environmental & Housing Support

Las Vegas Lead Hazard Control & Healthy Homes Program
This City of Las Vegas program helps make homes lead-safe by providing free lead hazard assessments and remediation services for eligible households. Families may qualify if their home was built before 1978, is located within Las Vegas city limits, and includes a child under the age of six who lives in or regularly visits. Services may include paint stabilization, window and door replacement, soil remediation, and general healthy homes repairs.

Case managers and families are encouraged to visit the program's website for current eligibility criteria, application details, and contact information.

- Phone: (702) 229-7444
- Email: shift@lasvegasnevada.gov
- Flyer: Las Vegas Lead Hazard Control and Healthy Homes Program

Environmental Lead Inspection and Risk Assessment

A LIRA—also commonly referred to as an environmental investigation—is an in-depth process used to identify current and potential lead hazards in the child's home or other frequently visited places. LIRAs must be conducted by a U.S. Environmental Protection Agency (**EPA**)-certified **risk assessor**, and includes:

- A thorough visual inspection of building conditions.
- Use of a portable x-ray fluorescence (XRF) analyzer to test for lead-based paint in painted surfaces and for lead in consumer goods and products.
- Collection of multiple environmental samples (e.g., dust, soil, and water)
- Analysis of environmental samples by a laboratory accredited to do lead testing.
- Compilation of findings into a detailed report that is shared with the family and case management team.

To learn more about what is included in a LIRA, refer to the NvCLPPP Protocol for Conducting a Residential LIRA for Children with a Blood Lead Level Above the CDC's Reference Value.

Preparing the Family for a LIRA

After completing the CLIQ, the case manager should:

1. **Confirm the family's interest in a LIRA.**

a. Explain that a LIRA is a comprehensive assessment to identify where lead exposures may be at in the child's environment.
b. Share that the environmental team may test dust, paint, soil, water, toys, cookware, and other household items for lead.
c. Let the family know they will receive a report with the findings and recommendations on how to reduce or eliminate identified lead hazards.

2. **Facilitate the referral and scheduling process of the LIRA.**
    a. Ask if the family is comfortable with the environmental team contacting them directly to schedule the assessment.
    b. Confirm the best contact information and preferred time for the visit.
    c. Ask if there is more than one location (e.g., a relative's home or childcare setting) that may need to be assessed.
3. **Provide relevant case information to the environmental team.**
    a. Send the completed CLIQ and any additional background information that may help avoid duplication of efforts.
    b. This step also supports a more personalized and efficient environmental assessment.

Coordinating a LIRA

LIRAs may take a long time to coordinate. Depending on the severity of the case, the case manager may advocate for the risk assessor to complete the investigation within a certain time frame. **Table 7** lists suggested time frames for completing the environmental investigation based on a child's confirmed BLL.

Table 7: Recommended Timeframe for the Environmental Investigation

BLL (µg/dL)	Timeframe for Environmental Investigation
3.5-14	Within 2 weeks
15-19	Within 2 weeks
20-44	Within 1 week
45-69	Within 48 hours
≥70	Within 24 hours

Note: This table was adopted from the Wisconsin CLPPP's handbook, Chapter 6.

If your LHD cannot provide LIRAs , the following partners may be contacted:

Nevada Childhood Lead Poisoning Prevention Program

The NvCLPPP team has EPA-certified risk assessors and may be able to provide a LIRA, free of charge, in response to a lead exposure case (contingent on funding and staff availability). Case managers can reach out directly to inquire.

- Email: nvclppp@unlv.edu
- Phone: 702-895-5067

EPA – Region 9

The EPA Region 9 team may be able to conduct a free LIRA for cases with a confirmed venous BLL ≥3.5 µg/dL. Case managers should contact the Region 9 on-scene coordinators to request support – but should be aware that responses may take time and are dependent on staffing and case volume.

- Olivia Trombadore: trombadore.olivia@epa.gov
- Bianca Handley: handley.bianca@epa.gov
- General Contact: r9.info@epa.gov
- Toll-Free: (866) 372-9378

During the LIRA

On the day of the environmental investigation, the family's trust and comfort should be a priority. Some families might prefer to have the case manager present during the investigation, while others might find it overwhelming and uncomfortable to have multiple strangers in their home at the same time. The case manager should ask the family what they prefer for the day of the investigation.

After the LIRA

After the LIRA is completed, the risk assessor will send environmental samples for analysis and prepare a report outlining the findings and recommendations. A copy of this report should be provided to both the case manager and the family. Turnaround time of the report varies depending on the organization conducting the investigation—it may take several weeks. During this time, the case manager should maintain communication with the family and be prepared to answer questions or provide support. In some cases, such as when the investigation is conducted by NvCLPPP, the environmental team may also follow up directly with the family to review results and respond to questions.

Once the report is received, the case manager plays an important role in reinforcing recommendations, educating the family, and coordinating next steps to reduce the child's exposure to lead hazards.

The following activities can help guide post-LIRA case management:

1. **Confirm the family received the LIRA report and offer to review it with them.**
    - Coordinate with the risk assessor to resend a copy of the report if the family did not receive it.
    - Determine whether the family would like help going over the report.
    - Use plain language and visuals (if available) to walk through the key results, emphasize areas of concern, and discuss recommended steps to reduce lead exposure.
2. **Contact the risk assessor with any questions, if necessary.**
    - Clarify any technical terms or unclear recommendations.
    - Note any urgent findings that may require prioritization in the case plan.
3. **Provide additional education on lead-safe practices.**
    - Reinforce cleaning techniques, hygiene practices, and safe renovation practices.
    - Emphasize the importance of proper nutrition to help reduce lead absorption.
4. **Refer the family to additional services, as needed.**
    - These referrals may include housing assistance, legal aid, or follow-up healthcare depending on the family's circumstances.
5. **Document all communications, referrals, and follow-up actions in the case file.**
    - Include notes on any unresolved concerns, family questions, or barriers to completing recommended actions.

Follow-up Communications

The case manager should plan to regularly follow up with the child's parent/guardian (e.g., monthly) to assess exposure, monitor progress, recommend confirmatory blood lead tests or retests, and determine if they have followed up on services after referrals were made.

Whenever possible, case managers are encouraged to facilitate a warm hand-off by contacting the referred agency directly—either with the family's consent or alongside the family—to help initiate services and ensure a smoother connection. After making a referral, as appropriate, case managers should follow-up with both the family and receiving agency to confirm service and address any barriers to access.

Case managers can ask the following questions during their follow-up communications:

1. How has the child been?
2. Has the child had any recent urgent care or emergency room visits? Or has the child been sick recently?
3. When was the child's last laboratory blood draw? When is the next?
4. When was the child's last appointment with the healthcare provider? When is the next?
5. Do you have any concerns about the child's health?
6. How is the child's diet? Are they getting adequate amounts of iron, calcium, and vitamin C?

7. Do you have any concerns about your child's toileting?
8. Does your child currently have any rashes?
9. Is your child currently taking any medications, vitamins, or supplements?
10. How is your child's hand-to-mouth activities?
11. Do you have any concerns about your child's behavior or development?

Unsuccessful Call Attempts to Parent/Guardian

If the first call attempt is unsuccessful, the case manager should:

- Leave a voicemail with their name, contact information, and brief explanation for the call.
- Attempt to call a second time, on a different day during a different time of day.

If the case manager is unable to reach the parent/guardian after two call attempts, then they should prepare and send a letter to the home explaining the LHD is trying to contact them. The letter should be generic and not include identifiable information, but should include contact information.

The case manager should make at least three attempts to contact the child's parent/guardian. Refer to **Section 6: Case Closure** for guidance on when and how to close the case.

Re-Engagement for Families Lost to Follow-Up

Consistent with CDC recommendations, families should not be administratively closed from case management until multiple, documented attempts have been made to re-establish contact. Case managers are encouraged to use a variety of outreach strategies—especially for families facing housing instability, limited access to phones or email, or other barriers to communication.

The following steps reflect the minimum expectations for re-engagement prior to administrative closure:

1. **Attempt contact through multiple methods.**
    - Make at least three documented outreach attempts using a variety of methods (e.g., phone calls, text messages, mailed letters, or coordination with the healthcare provider or school).
2. **Conduct home visits.**
    - Complete at least two attempted home visits.
    - If no one is home, leave lead education materials and contact information in a visible and secure location.
3. **Engage through alternative locations.**

- If the family cannot be reached at home, consider visiting other settings the child frequents, such as extended family homes, early childhood programs, or medical providers, when appropriate and permissible.

4. **Create a written case plan based on known needs.**
    - When possible, base this on previous assessments, interviews, or observations from prior visits.
    - This step helps ensure continuity of care if the family reconnects with services.
5. **Document all efforts thoroughly.**
    - Include the date, method of contact, and outcome for each outreach attempt in the case file.

If all re-engagement efforts are exhausted and there is no response, administrative closure may be considered.

Section 6: Case Closure

Case management can take several months. It often takes an extended period of time to achieve all elements of case management for children with BLLs at or above the BLRV. The child's case should not be closed until it is confirmed that the child's BLL is below the BLRV and it is determined that the child lives in a lead-safe environment.

In some cases, administrative closure might be necessary for reasons outside of the case manager's control. A case may be administratively closed if:

- The parent/guardian refuses services (if BLL is ≥ 45µg/dL, immediately contact HCP to determine their plan and refer to Child Protective Services)
- The family moves out of the county
- The family is lost to follow-up
- At least 3 documented attempts have been made to contact the family with no response from the family

Case management services may be discontinued if one or more of the following are met:

- A minimum of two successful calls (e.g., the initial call and a follow-up call) or home visits have been completed in which lead education was provided;
- Nutritional, medical, and developmental assessments are completed;
- The LIRA is completed and the report was provided to the family; and/or
- The child has had two consecutive blood lead levels below 3.5 µg/dL, ideally within a 6-month period.

Section 7: Special Considerations for Serving Tribal Communities

Nevada is home to several tribal communities, many of which operate their own health and housing programs. When a child has a BLL above the BLRV and resides on tribal land or receives care through a tribal health clinic, case managers must recognize that these clinics operate under tribal authority and may follow different procedures than LHDs.

Tribal clinics and lands fall outside of LHD jurisdiction. Case managers should never initiate services or conduct environmental assessments on tribal land without coordination or consent from tribal authorities. However, collaboration and information-sharing can still help support the child's health and safety.

Key Considerations:

- If the child receives care at a tribal health clinic, offer to coordinate with clinic staff to ensure consistent follow-up.
- Document whether the family receives services through Indian Health Service (IHS) or a tribally operated clinic.
- Share educational materials with tribal providers, if requested.
- NvCLPPP can assist tribal partners with certified risk assessments, environmental guidance, or referrals.
- Some tribes may have housing remediation resources through HUD's Office of Native American Programs.

Appendix A: Training and Reference Resources for Case Managers

These resources provide foundational knowledge and professional development tools for case managers working with children that are exposed to lead. They include state-specific guidance, national training programs, and continuing education materials.

Nevada Childhood Lead Poisoning Prevention Program (NvCLPPP)

NvCLPPP offers state-specific guidance and training materials to support lead case managers in Nevada. These resources cover blood lead testing, case management actions, environmental response, and family education.

Available Resources

- *Blood Lead Testing and Response Plan* – A reference document outlining standardized recommendations for testing, reporting, and public health follow-up of elevated blood lead levels in Nevada. Case managers can use this to guide decision-making and ensure consistent practices across programs.
- *Childhood Lead Poisoning 101 Training* – This introductory presentation can be requested from NvCLPPP. It covers the fundamentals of lead poisoning, including sources, health impacts, and an overview of case response. New case managers are encouraged to attend this training as part of onboarding or for a refresher.
- *Lead-Related Recalls* – A regularly updated list of consumer products and food items that have been recalled or flagged due to the presence of lead. Case managers can use this list to help identify potential sources of exposure during investigations or when educating families.
- *Printed Educational Materials* – NvCLPPP offers downloadable and printed materials for families on topics such as lead-safe cleaning, nutrition, and household sources of lead. Case managers may request materials to use during visits or distribute in the community.
- *Technical Assistance* – NvCLPPP staff are available to provide support with case management questions, outreach strategies, or coordination of environmental follow-up. Contact the team for guidance or to discuss challenging cases.

Contact Information

- Email: nvclppp@unlv.edu
- Phone: (702) 895-5067
- Website: NvCLPPP Home Page

CDC – Childhood Lead Poisoning Prevention Program

The CDC CLPPP website provides up-to-date information, best practices, and national guidance on preventing and managing childhood lead exposure. Case managers can find resources on testing and reporting, surveillance, case management guidelines, educational tools, and data trends to help strengthen local prevention efforts. This site is a reliable starting point for both new and experienced case managers looking to expand their knowledge.

CDC's Childhood Lead Poisoning Prevention Program

Western States Pediatric Environmental Health Specialty Unit (WSPEHSU)

WSPEHSU offers free training materials, technical support, and educational resources for professionals working with lead-exposed children. Their resources include animated videos, printable fact sheets, and continuing education opportunities that are especially useful for new case managers and healthcare providers.

These materials can be used to support case manager onboarding or supplement family education efforts.

Contact Information

- Email: pehsu@ucsf.edu
- Phone: (866) 827-3478
- Website: WSPEHSU Home Page

Blood Lead Testing and Reporting Laws

Case managers must understand the federal and state laws that guide when blood lead testing must occur and how results must be reported. Knowing these requirements will support consistent care.

- **Federal Medicaid Policy (Title XIX of the Social Security Act):** Children enrolled in Medicaid must receive a blood lead test at 12 and 24 months of age. Any child between 24 and 72 months with no record of a blood lead test must receive one. The completion of a risk questionnaire alone does not satisfy this requirement — only a documented blood lead test does.
- **Nevada Revised Statutes (NRS 442.700):** Nevada law encourages healthcare providers to test children at 12 and 24 months and at least once before age 6. Capillary tests ≥ 3.5 µg/dL must be confirmed by a venous draw. Laboratories and healthcare providers must report all blood lead test results, regardless of result, to their local health authority.

Appendix B: Case Management Checklists

Use this printable checklist to guide the full case management process for children with a BLL above the BLRV, from notification through case closure. Each action step corresponds to sections in this document and should be completed for every case.

Review Case Information

☐ Review BLL result and note the test type (venous or capillary) and test date.

☐ Determine what information is included in the report and what needs to be confirmed with the HCP (Refer to Table 4), including:

- ☐ Ordering provider and clinic name
- ☐ Provider/clinic contact information
- ☐ Parent/guardian name and phone number
- ☐ Child's full name and date of birth
- ☐ Child's sex, race, ethnicity
- ☐ Child's address and Medicaid status
- ☐ BLL result, sample collection date, and sample type
- ☐ Date BLL sample analyzed and date reported to LHD

Contacting the Provider

☐ Attempt to contact the child's HCP within 2 business days of receiving the case.

☐ Confirm or collect essential case information (Refer to Table 4).

☐ Review the child's clinical care plan, including follow-up BLL testing (Refer to Tables 1-2).

☐ Offer to send NvCLPPP educational materials (Refer to Table 5).

☐ Ask if the HCP can notify the parent/guardian that the LHD will be reaching out.

Case Management Visits

☐ Introduce yourself and confirm you are speaking with the parent/guardian.

☐ Confirm the child's identity and explain the reason for the call.

☐ Collect or confirm any remaining case information.

☐ Discuss the child's BLL result and what it means.

☐ Review follow-up testing recommendations based on the child's BLL (Refer to Tables 1-2).

☐ Complete the CLIQ with the parent/guardian to help identify potential sources of lead exposure in the child's environment.

☐ Provide tailored recommendations on how to reduce lead hazards based on the findings from the CLIQ.

☐ Provide foundational health education about childhood lead poisoning, including:

- ☐ Common source and routes of lead exposure.
- ☐ Health effects of lead, especially in young children.
- ☐ Practical tips for reducing exposure in the home.
- ☐ Nutritional strategies to reduce lead absorption, with an emphasis on foods rich in iron and calcium.

☐ Offer to send printed or digital educational materials from NvCLPPP.

☐ Refer the family to appropriate programs and services based on the child's age and family's needs, such as:

- ☐ The child's primary care provider for medical follow-up.
- ☐ Early intervention or early childhood development programs.
- ☐ WIC or other nutritional counseling services.
- ☐ Housing or social service agencies that may provide additional support.

☐ Discuss the opportunity to complete an environmental Lead Inspection and Risk Assessment (LIRA) of the child's home and any other locations the child visits frequently (e.g., childcare, family members' home).

Preparing the Family for a LIRA

☐ Confirm the family's interest in a LIRA.

☐ Facilitate the referral and scheduling process of the LIRA.

☐ Provide relevant case information to the environmental team.

After the LIRA

☐ Confirm the family received the LIRA report and offer to review it with them.

☐ Contact the risk assessor with any questions, if necessary.

☐ Provide additional education on lead-safe practices based on the LIRA results.

☐ Refer the family to additional services, as needed.

☐ Document all communications, referrals, and follow-up actions in the case file.

Case Closure

☐ Administratively close the case if one of the following is met:

- ☐ Parent/guardian refuses services.
- ☐ The family moves out of the country.
- ☐ The family is lost to follow-up.
- ☐ At least 3 documented attempts have been made to contact the family with no response from the family.

OR

☐ Discontinue case management if one or more of the following are met:

- ☐ A minimum of two successful calls or home visits have been completed where lead education was provided.
- ☐ Nutritional, medical, and developmental assessments were completed.
- ☐ The LIRA was completed and the report was provided to the family.
- ☐ The child has had two consecutive BLLs below 3.5 µg/dL, ideally within a 6-month period.

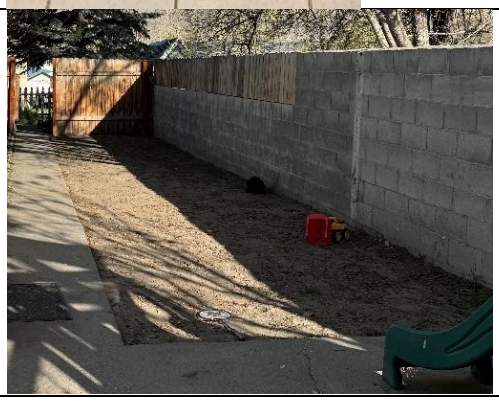
Appendix C: What the BLL Result Means

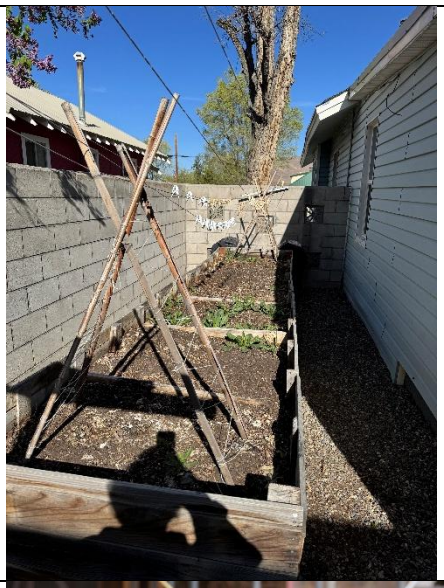
BLL (µg/dL)	Interpretation of BLL Result
<3.5	3.5 µg/dL is the CDC's current reference value. This result indicates that your child has a BLL lower than most children. Your child may have been exposed to low levels of lead recently.
3.5-15	Your child's lead level is high. It is above the CDC's current reference value of 3.5 µg/dL. This level is concerning and indicates a need for further investigation.
15-45	Your child's lead level is very high. It is well above the CDC's current reference value of 3.5 µg/dL. This is a significant level of concern. Health interventions are crucial, and medical treatment may be necessary.
45+	Your child's lead level is extremely high. It is well above the CDC's current reference value of 3.5 µg/dL. This level is considered severe and typically requires medical treatment to remove lead from the body. Your child needs to see a doctor right away.
If your child has a blood lead level at or above 3.5 µg/dL and the test was conducted using a finger or heel stick, the child must have a second test done using a blood sample from a vein in order to confirm the result.	

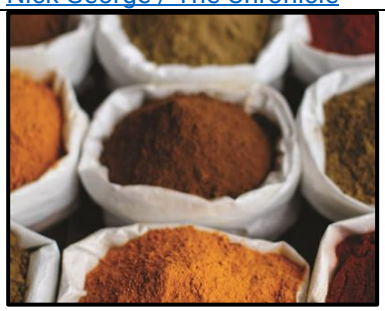
Note: This table was adapted from the Michigan CLPPP's handout, "What Your Child's Blood Lead Test Means"

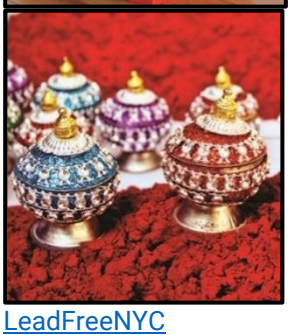
Appendix D: Common Sources of Lead Exposure

These examples are not exhaustive — families may have unique cultural practices, heirlooms, or imported goods that are potential sources. Always ask open-ended questions to learn more about a child's home, play areas, and family activities.

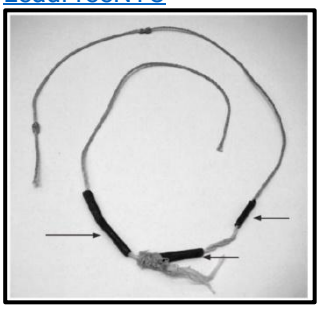
Category	Examples	Photo Examples
Paint and Dust	• Peeling or chipping lead-based paint in homes, schools, or childcare facilities built before 1978 • Dust from friction surfaces (e.g., windows, doors, stairs) or other components of the home that contain lead (e.g., tiles, sink, window sill) • Remodeling or renovation activities (e.g., sanding, scraping, or demolition) • Old painted furniture (e.g., cribs, chairs)	 
Soil	• Bare soil in yards near older homes, highways, certain industries (smelters, mines, battery recycling), or airports • Play areas and/or gardens near exterior walls with peeling or chipping paint	

		
Plumbing and Water	• Lead pipes and plumbing fixtures in older homes, especially those built before 1986 • Brass or chrome-plated faucets	  Qomolangma HGN  VFAUOSIT VESLA HOME Kicimpro  KZH CEINOL  Rainsworth NICTIE

Foods	• Candies • Snack mixes that use chili or fruit pulps • Chocolates (Ecuador) • Canned goods with soldered seams (less common, but may still be imported from other countries)	 Nick George / The Chronicle
Spices	• Turmeric • Cinnamon • Paprika • Curry powder • Cumin • Imported spice mixes (these are sometimes blended with lead chromate for color)	 LeadFreeNYC
Health Remedies	• Rasa Shastra Ayurvedic medicines • Traditional Chinese medicines • Calabash Chalk • Tierra Santa/Panito del Señor • Litargirio • Greta or Azarcón (traditional remedies for stomach upset) • Pay-loo-ah (Southeast Asian “digestive” powder) • Daw Tway (Burmese digestive remedy) • Traditional homeopathic powders or clays	 California Department of Public Health   North Carolina Healthy Homes

Cookware or Dishes	• Vintage ceramic dishes or mugs (especially with colorful glazes) • Imported decorative plates not intended for food use • Aluminum pots and pans from street markets (may have lead soldering) • Traditional or handmade ceramics • Traditional “Kansa” or brassware	 FDA  Journal of Exposure Science and Environmental Epidemiology
Cosmetics and Cultural Powders	• Kohl • Kajal • Surma • Tiro • Sindoor • Tika • Kum kum • Litargirio • Kumkum or Vermillion (Hindu religious markings) • Henna (sometimes adulterated with lead for color) • Whitening creams or soaps (may contain lead as a skin lightener)	  LeadFreeNYC North Carolina Healthy Homes 

Toys or Novelty Items	• Painted toys • Small figurines • Children's sunglasses • Pencil pouches • Dolls • Toy cars and trucks • Secondhand or vintage toys (especially painted before 1978) • Costume jewelry found in vending machines or dollar stores • Imported plastic or vinyl items (some have lead-based stabilizers) • Party favors and prizes	 CDC     CPSC

Jewelry, Amulets, Charms	• Children's necklaces • Children's bracelets • Metal jewelry • Imitation pearl beads	 LeadFreeNYC  CDC  Jeff Weidenhamer, Ashland University

Appendix E: Occupations and Hobbies

You or other household members may work in jobs or have hobbies that expose to lead. You may be at risk if you:

- Work with or disturb lead-based paint (grinding, cutting, scraping, blasting)
- Demolish structures with lead paint
- Handle leaded cables, wires, or scrap metal
- Pour powders that contain lead pigments
- Do remodeling or renovation work
- Shoot in or clean indoor firing ranges
- Use artist pigments
- Break up old lead batteries
- Remove paint with heat guns
- Weld, solder, or torch cut lead-containing materials
- Work in smelting operations (e.g., foundries)

People who are exposed to lead at the workplace or through hobbies may unintentionally track lead dust into their homes and expose children and other family members. This is known as para-occupational or “take-home” lead exposure. This happens when lead dust is carried home in vehicles or on clothes, shoes, skin, and hair. “Take home” lead can cause lead poisoning in children.

To keep yourself and your family safe from take-home lead:

- Wash your hands before eating, drinking, or touching anything
- Change your clothes and shoes before going home or getting into your car
- Wash work and hobby clothes separately from other laundry
- Use a HEPA vacuum to clean lead dust from your home and car
- Talk to your doctor about a lead test if you suspect exposure

Appendix F: Nutrition

Feeding your child regular meals and snacks will help his/her body to absorb less lead. An empty stomach absorbs more lead. Children should be fed three meals and two or three snacks each day. Prioritize a balanced diet with foods high in iron, protein, calcium, and vitamin C. **Talk to your child's doctor, nurse, or nutritionist for age-appropriate foods for your child.**

Foods High in Iron and Protein

To the body, lead and iron look very similar. If a child has a low body store of iron, the body may absorb more lead. Iron-rich foods should be served at least twice a day. The following foods are rich in iron and protein:

- Lean red meats, poultry, and fish
- Eggs
- Nuts or sunflower seeds
- Dried fruits (raisins, dates, prunes)
- Oysters, clams, and mussels
- Dark, leafy green vegetables (spinach kale, collard greens, bok choy, etc.)
- Legumes (peas, beans, and lentils)
- Iron-fortified cereals
- Tofu

Foods High in Calcium

Foods high in calcium also help the body to absorb less lead. Serve foods high in calcium at least two times each day. Foods rich in calcium include the following:

- Milk and milk products (dried milk, buttermilk, kefir)
- Cheese and cottage cheese
- Yogurt, frozen yogurt
- Calcium-fortified tofu
- Sardines and canned salmon
- Calcium-fortified orange juice
- Corn tortillas

Foods High in Vitamin C

Vitamin C helps the body absorb iron and calcium. Foods that contain vitamin C should be served at least twice each day. Some foods that are high in vitamin C include the following:

- Oranges, tangerines, grapefruit
- Tomatoes, tomato juice
- Potatoes (all kinds) with skin
- Red and green bell peppers
- Lemons and limes
- Broccoli, cauliflower, raw cabbage
- Pineapple, kiwi, guava, mango, papaya
- Melons and berries

Cooking Tips

- Eat fruits and vegetables raw whenever possible
- Prepare foods with vitamin C and iron in the same meal to help with iron absorption
- Bake, broil, steam, grill, or boil food instead of frying
- If you know or suspect lead in your water, use bottled water or cold water filtered by an NSF-certified filter to wash, cook, and prepare foods

For meal ideas, visit wicworks.fns.usda.gov/resources/fight-lead-poisoning-healthy-diet

Foods to Avoid

- Foods high in fat, including fried foods, lunch meats, margarine, butter, cakes, etc.
- Foods prepared or stored in glazed ceramic dishes
- Imported spices (e.g., turmeric, chili powder, and paprika)
- Some imported candies (e.g., Mexican candies containing tamarind or chili powder)

Appendix G: Cleaning Practices and Personal Hygiene

Lead dust can accumulate on surfaces inside a home, which can expose children to unsafe levels of lead. Certain housekeeping methods can safely reduce the amount of lead dust in your home. Good hygiene is also important in protecting children against lead exposure.

"Wet Cleaning" Surfaces and Floors

Cleaning Supplies

- Rubber gloves
- Paper towels, disposable rags, or sponge
- All-purpose cleaner
- Heavy-duty plastic garbage bags
- Mop
- Water
- Three buckets

Before Starting

- Do not allow children, pets or pregnant women into the area until cleaning is complete.
- Do not eat, drink, chew gum or tobacco, or smoke during the cleaning process.
- Wear rubber gloves and clothing that can be easily washed.
- Pick up all clothing, towels, toys and trash to make cleaning activities easier.
- Set up your three buckets: one bucket with all-purpose cleaner, one bucket with clean water, and one empty bucket.

Small Surfaces (window sills, shelves, etc.)

- Wet the rag, paper towel, or sponge, in the all-purpose cleaner bucket. Wring it out.
- Clean surface from top to bottom, wiping in one direction.
- When you are ready to wet the rag/paper towel/sponge again, wring out as much as you can into the empty bucket. Rinse it in the clean water bucket. Then wring it again into the empty bucket. Wet it in the all-purpose cleaner bucket. Repeat this as needed.

Large Surfaces (uncarpeted floors)

- Soak mop in the all-purpose cleaner bucket. Wring out excess liquid.
- Start from the corner farthest from the door and mop towards the door, mopping small areas of floor at a time.
- When you are ready to wet the mop again, wring the mop into the empty bucket. Rinse mop in the clean water bucket, and wring the mop into the empty bucket. Wet the mop in the all-purpose cleaner bucket and repeat.

Proper Disposal of Cleaning Supplies

- Put soiled gloves, rags, paper towels, and sponges in plastic garbage bags. Tie the bags and throw them away in outside trash can. Keep out of the reach of children and pets.
    - For sponges, rags, and gloves you plan to use again, wash and rinse these items separately. DO NOT rinse these items in sinks or areas where you prepare food.
- Pour dirty water into the toilet and flush it. DO NOT pour the dirty water in the sink where food might touch and DO NOT pour it outside where children might play.
- Wash your hands when you are done cleaning and disposing supplies.

Vacuuming Area Rugs and Carpeted Floors

Vacuuming Supplies

- High Efficiency Particulate Air Filter (HEPA) vacuum
- All-purpose cleaner and sponge or rag (if cleaning stains)

Do NOT use a regular household vacuum cleaner to clean up lead paint chips or dust. Some communities or hardware stores may sell or offer a loaner HEPA vacuum.

Area Rugs

- Vacuum the top of the rug. Fold in half.
- Vacuum the back half of the rug facing you, then flip the rug and vacuum the other half.
- Use a wet sponge or rag to remove any stains.

Carpeted Floors

- Vacuum carpets very slowly in side-to-side directions. Vacuum the room in one direction for the first pass. For a second pass, vacuum perpendicular to the first pass.
- When practical, work from the cleanest areas to the dirtiest areas to minimize spreading lead-contaminated dust to clean areas.
- Use the corner tool in corners, cracks of trim, and edges of carpet.
- Use a wet sponge or rag to remove any stains.

DO NOT open or change the filters and bags inside the home.

Other Housekeeping Tips

- Wet clean surfaces and floors, and vacuum carpets at least one a week to control dust levels.
- Don't use abrasive cleaners to clean walls and surfaces containing lead. These cleaners can disrupt the paint and release more lead into the home.
- To prevent tracking in lead dust, remove shoes when coming indoors, or place mats at the door to wipe shoes.
- Never shake or beat rugs. This can release and spread lead dust into the air.
- If you know your carpet is contaminated, consider removing the old carpet.
- Remove or replace mini-blinds unless you are sure they do not contain any lead.
- Always wash or wipe down toys, blankets, and other items your child uses or plays with. Clean these items daily if they fall to the floor; otherwise, wash weekly.
- If you or someone you live with works with lead, wash work clothes separately.

Personal Hygiene

- Wash a child's hands, face and mouth often, especially before meals.
- Wash bottle nipples, pacifiers and toys that are placed in children's mouths often.
- Keep children's fingernails short, so lead dust cannot be easily trapped.
- Always eat at a clean table. Food that has been dropped on the ground should be discarded.
- If you or someone you live with works with lead, remove work clothes and shoes before you enter your home. If possible, shower immediately when you get home to remove any lead dust from your hair or skin.