IDAHO MEDICAID
CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
POLICY
LEAD INTERVENTION PROGRAM

Overview of Lead Testing Policy

- Blood lead tests are available by request for any person residing in Idaho, however the focus of testing are Idaho Medicaid eligible children.

- The Provider will bill the Department for blood lead tests performed for eligible Idaho Medicaid participants. The Provider may collect their usual and customary fee from non-Medicaid participants. The Centers for disease Control and The American Academy of Pediatrics recommends that Providers follow the Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP)[1] recommendations for testing at:
  1. 12 months; and
  2. 24 months;
  3. Or at ages 36-72 months if they have not previously been screened.

- Prior to blood draws, the parent/legal guardian or adult participant must sign a Consent Form ***(Lead Results Report Form: Appendix A and B)***.
  - If the child will be unaccompanied during the screening, the parent/legal guardian must also complete a confirmation of Medicaid eligibility, or a fee will be collected prior to the client's blood screening being completed.

Provider Responsibilities:

- Each day of operation, prior to running any patient samples, the Provider verifies that the LeadCare Analyzer is functioning properly. This is done by watching the machine for the SELF TEST OK, by verifying that the Calibration Code on the machine matches the code on the Test Kit, and by analyzing quality control samples (high and low) and verifying that they are within the established values. Results of the Self Test and Calibration Check are recorded on the ***LeadCare Analyzer Maintenance Log***: ***Appendix C***.

- It is the Provider's responsibility to comply with CLIA License requirements. *(Refer to CLIA Requirements).*

- All Proficiency Testing information and results are to be kept by the Provider.

Lead Analysis Training:

- All staff who perform blood lead testing and analysis are trained to use the LeadCare Analyzer. The initial training includes:
  1. Viewing the LeadCare Training video.
  2. Review of the contents of the *LeadCare User's Guide* and the *Policies & Procedures Manual.*

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[1] Reference: MMWR December 08, 2000/49(RR14); 1-13 Recommendations for Blood Lead Screening of Young Children Enrolled in Medicaid: Targeting a Group at High Risk.

3. Maintenance and cleaning of the LeadCare Analyzer.
4. Quality control procedures.
5. Sample collection, identification, and storage.
6. Sample analysis.
7. Recording of results.
8. Reporting results. Copies of recorded results are to be reported to the Department of Heath and Welfare, Division of Medicaid on a quarterly basis. They are due March 1, June 1, September 1, and December 1.
   Mail to:
   - Lead Screening Program
     3232 Elder St.
     Boise, Idaho 83705
9. Troubleshooting and malfunctions.
10. Customer service access.

- The initial training is documented on the ***LeadCare Analyzer Training Checklist: Appendix E***.

- Results of all blood analyzed on the LeadCare Analyzer are recorded in the ***LeadCare Blood Testing System Data Sheet: Appendix D*** and the patient's medical record.

- The *LeadCare Analyzer User's Guide* is the final authority on questions related to analysis of blood samples for lead testing.

- Results of capillary tests are provided to the participant or parent immediately after analysis using the designated forms. If testing for another provider, the family physician or provider is sent either by fax or mail a copy of the screening results within one week of testing.

Blood Testing:

- Screening blood tests are done by skin puncture. (A venous sample may be substituted at the request of the parent/participant.) Sites for skin puncture are finger, big toe, heel, or earlobe. The preferred site for infants under 1 year of age is the big toe or heel. The finger is preferred for all other ages. Capillary blood samples are collected in a heparinized, lead-free ESA capillary tube and analyzed immediately.

Laboratory Testing:

- Because the level of concern for childhood lead poisoning is now recognized as 10µg/dL rather than 25µg/dL, the erythrocyte protoporphyrin test is no longer adequate for finding children adversely affected by lead.

- A highly accurate (low bias) method for measuring blood lead is the isotope dilution-mass spectroscopy technique. CDC uses a similar method, inductively coupled plasma-isotope dilution-mass spectroscopy analysis.

- Many clinics now use a protocol where an initial fingerstick sample is taken and the result may be given immediately to the patient and their family. A fingerstick sample result of 10µg/dL or greater should be confirmed by venous testing, but even if not

purposes of public health reporting, investigation, and response. If follow-up venous testing is done, and the result is less than 10µg/dL, the fingerstick can be disregarded as probable false-positive UNLESS the fingerstick result was greater than 14µg/dL AND a significant amount of time (greater than a few weeks) has elapsed between the fingerstick and the venous sample.

- The Idaho Bureau of Laboratories offers a test for lead, mercury and cadmium in whole blood. This test is not suitable for pediatric patients. Optimal amount of specimen is 1-2 mL, minimum is 0.25 mL. Specimens must be collected in trace element vacutainers (certified for use in metals determinations) containing anticoagulant agent. The blood must be drawn through a stainless steel needle. If more than one evacuated tube of blood is to be drawn from an individual, the trace metals tube should be drawn second or later. Two blank (empty) containers should be submitted per lot of specimen containers. Handle and store blank containers in an identical manner to specimen containers for testing. Specimens should be stored and transported at ≤4 degrees C. See IATA regulations for shipping specimens.

Sample Results:

- Normal:
  - Sample results of 0-9 µg/dL are considered within normal limits.
    A. Clients are provided a letter of the test results. (***Lead Normal Result Letter: Appendix F***).

- Above Normal:
  - Sample results of 10-14 µg/dL are outside the normal range and require the following:
    A. Clients are provided a letter of the test results (***Above Normal Result Letter: Appendix G***)
    B. It is recommended by CDC Guidelines that all elevated capillary blood lead levels (10µg/dL or greater) will be confirmed by a venous sample.
    C. Blood lead levels of 10µg/dL or greater are reported within three working days to the Public Health District CD/EPI Team for investigation, interview, evaluation, education and follow-up. *(Refer to Elevated Blood Lead Investigation Form* for an example of investigation criteria*).*
    D. The Public Health District will file a report of abnormal results with the Office of Epidemiology and Food Protection via the National Electronic Disease Surveillance System (NEDSS) for each person with an elevated blood lead level (10µg/dL or greater) in accordance with Idaho regulations.
    E. A repeat test in 3-4 months.

  - Capillary sample of ≥ 15 µg/dL requires the same above procedures, as well as the following:
    A. Home visit and environmental analysis by the Public Health District.
       1. Billable under Medicaid.
       2. Requires RN evaluation.
    B. A repeat test in 3-4 months.

Investigating a reported case:

A CD/EPI Nurse and/or environmental health specialist provides follow-up services for all children with blood lead levels of 10µg/dL or greater depending on the levels of abnormality. A home visit with the parents is scheduled as soon as possible with levels ≥ 15. The home environment is inspected for sources of lead. For adults, if occupational exposure is suspected, investigation may involve contact with the employer's occupational health and safety officer. One of the major concerns in adults is whether they may be bringing lead home to their families, especially young children, on their hands, tools, and clothing. Parents are counseled on interventions including nutrition, personal and household hygiene, and ways to break exposure pathways. Referrals are made for appropriate services needed such as developmental screening, WIC, etc.

Education for people affected by lead and their families:

- A questionnaire is completed to determine exposure sources and risk factors during home visits.
- Housekeeping intervention is provided to reduce exposure to dust.
- Education on attention to nutrition is provided.
- There are many interventions parents can use to help reduce blood lead levels; however t*hese interventions are not a substitute for lead hazard abatement.*

Specific Recommendations:

Particularly in older homes, which may have been painted with lead-based paint, interventions to reduce exposure to dust may help reduce blood lead levels. These include:

- Assure that the child does not have access to peeling paint or chewable surfaces painted with lead-based paint. Pay special attention to windows, window sills and wells.
- If the house was built before about 1960 and has hard surface floors, recommend wet mopping the floors at least once a week with a high phosphate solution (for example, 5-8% phosphates). The phosphate content of automatic dishwashing detergents and other cleaning substances is often listed on the label and may be high enough for this purpose. Otherwise, trisodium phosphate can be purchased in hardware stores. Other hard surfaces, such as window sills and baseboards, should also be wiped with a similar solution.
- Do not vacuum hard surface floors or window sills or wells, since this will disperse dust. Vacuum cleaners with agitators remove dust from rugs more effectively than vacuum cleaners with suction only.
- Wash the child's hands and face before he/she eats.
- Wash toys and pacifiers frequently.
- If soil around the home is or is likely to be contaminated with lead (for example, if home was built before 1960 or the house is near a major highway), plant grass or other ground cover. Since the highest concentrations of lead in a yard tend to be near surfaces that were once painted with lead paint, like exterior walls, if exterior lead paint was likely to be used, plant bushes around the outside of your house so your child cannot play there.
- In areas where lead content of water exceeds the drinking water standard, use only fully flushed water from the cold-water tap for drinking, cooking, and making formula.

In communities where water conservation is a concern, use the first-flush water for other purposes.

- Do not store food in open cans, particularly if the cans are imported.
- Do not use pottery or ceramic ware that was inadequately fired or is meant for decorative use for food storage or service.
- Make sure that take-home exposures are not occurring from parental occupations or hobbies.
- Make sure the child eats regular meals, since more lead is absorbed on an empty stomach.
- Make sure the child's diet contains plenty of iron and calcium.

References:

CDC's facts for parents: www.cdc.gov/nceh/lead/faq/cdc97a.htm

EPA Lead web site:
General information: www.epa.gov/lead/
Lead in the Environment: www.epa.gov/seahome/leadenv.html

Treatment guidelines from the American Academy of Pediatrics:
http://aappolicy.aapublications.org/cgi/reprint/pediatrics;96/1/155.pdf

Recommendations for Blood Lead Screening of Young Children Enrolled in Medicaid: Targeting a Group at High Risk:
http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4914a1.htm

Children's Lead Screening Program of Idaho

APPENDIX A

Lead Results Report Form

Patient Information

Date of Testing: __/__/__	Date of Report: __/__/__	Date of Birth	Sex ☐ Male ☐ Female		Age
Last Name	First Name	Middle Initial	Maiden Name		
Street Address	Mailing Address	City	County	State	Zip
Home Phone ( )	Work Phone ( )	Message Phone ( )	Social Security #		

Blood Lead Result _____ µg/ml	*If the result is greater than 10µg/ml the result has been reported to the Health Department*

Insurance Information

Medicaid # (If applicable)_____

Healthy Connections ☐ Yes ☐ No

Physician's Name _____ Address: _____

Physician's Phone # _____ Physician's Fax # _____

Medicare # (If applicable) _____

Do you have other health insurance? ☐ Yes ☐ No

If yes, please fill in the information below

Name of insured? _____SSN# _____

Relationship to insured _____

Employer _____

Insurance Company _____Policy # _____

Address _____

My signature acknowledges that I am choosing for myself and/or my child to receive medical services or education from my primary care physician and my signature directs those services and authorizes release of payment of medical benefits. I understand that all information is confidential and may not be released without my written permission, unless otherwise required by law. I certify that to the best of my knowledge, the above information is correct.

_____ _____

Patient or Guardian's Signature Date

_____ _____

Clinician's Signature or Testing Personnel Date

Children's Lead Screening Program of Idaho

APPENDIX B

Reporte de los Resultados del Plomo

Informaciòn de el Paciente **Mitchell & McCormick #** _____

Fecha del Examen: __/__/__	Fecha del Reporte __/__/__	Fecha de Nacimiento	Sexo ☐ **Masculino** ☐ Femenino		Edad
Apellido	Primer Nombre	M.I.	Nombre de Soltere		
Domicilio	Domicilio de Correspondencia	Ciudad	Condado	Estado	Codigo Postal
Tel. de la Casa ( )	Tel. del Trabajo ( )	Tel. de Mensaje ( )	# de Seguro Social		
Resultados del Plomo en la Sangre_____µg/ml	*Si el resultado contiene mas de 10ug/ml, se le informara a el Departamento de Salud*				

Informaciòn de la Aseguranza

del Medicaid (Si es aplicable)_____

Es Cliente de Healthy Connections? ☐ Si ☐ No

Nombre de su Medico _____ Domicilio_____

de Tel. del Medico _____ # de Fax del Medico _____

de Medical (Si es aplicable) _____

Tiene algun otra aseguranza de salud? ☐ Si ☐ No

Si la respuesta es si, por favor llene la siguiente informacion

Nombre de aseguranza? _____# de Seguro Social _____

Relaciòn del asegurado _____

Lugar de Empleo_____

Nombre de aseguranza _____# de Poliza_____

Domicilio _____

_____ Firma de Padre o Guardian

_____ Fecha

_____ Clinician's Signature or Testing Personnel

_____ Date

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
LEADCARE ANALYZER MAINTENANCE LOG
APPENDIX C

Date & Time	Self Check/Calibration Check/Maintenance Performed	Comments	Performed by

mntlog 08/01

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
LEADCARE BLOOD TESTING SYSTEM DATA SHEET
APPENDIX D

Lot Number_____ Exp. Date_____

	Date	Patient Name	Patient ID #	Physician	Quality Control	Test Results µg/dl	Comments	Tech
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

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CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
LEADCARE ANALYZER TRAINING CHECKLIST
APPENDIX E

Introduction

_____ 1. Analyzer technology
_____ 2. User's Guide
_____ 3. Policies & Procedures Manual
_____ 4. Test Kit contents
_____ 5. Environmental conditions
_____ 6. Battery & AC operation

Calibration

_____ 1. Calibration button
_____ 2. Verification with Test Kit

Maintenance

_____ 1. Verification of normal operation
_____ 2. Cleaning
_____ 3. Log

Quality Control

_____ 1. Daily and periodic QC testing
_____ 2. Storage and handling of control materials
_____ 3. Recording of results
_____ 4. Out-of-control results.

Sample Analysis

_____ 1. Sample collection
_____ 2. Sample identification
_____ 3. Pipette use
_____ 4. Sensor
_____ 5. Sample

Results

_____ 1. Recording in lab log
_____ 2. Reporting
_____ 3. Trigger levels

Miscellaneous

_____ 1. Cautions
_____ 2. Troubleshooting
_____ 3. Malfunction record
_____ 4. Customer Service

I have performed or have been instructed in the above procedures.

_____ _____
Technician Date

_____
Trainer

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
NORMAL LEAD RESULT LETTER
APPENDIX F

Blood Lead Screening Results

Your capillary blood lead screening result is **within the normal range** as described by the Centers for Disease Control and Prevention (CDC). The CDC guidelines published in 1991 define an elevated blood lead level in children as 10 μg/dL or more.

Certain activities place you or your child at risk for exposure to lead. Lead is taken into the body by swallowing it and by breathing it. Common sources of lead are contaminated dust, dirt, and older paint. You can protect your health by following a few simple steps.

- Wash your hands before eating or handling food.
- Play in remediated areas and on grass. Avoid contaminated dirt on hillsides, river banks, shore lines, and in yards.
- Eat a nutritious, well-balanced diet.

Additional information about lead and ways to protect your health is available at your local District Health.

If you would like more information, please call your primary care physician.

Name_____ ID#_____

Blood lead level_____ μg/dL

Test performed at _____ Date _____

Test performed by_____ Date _____

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
ABOVE NORMAL RESULT LETTER
APPENDIX G

Blood Lead Screening Results

Your capillary blood lead screening result is **above the normal range** as described by the Centers for Disease Control and Prevention (CDC). The CDC guidelines published in 1991 define an elevated blood lead level in children as 10 µg /dL or more and describe certain steps that should be taken depending on the test result.

- Children with blood lead levels of 10 – 14 µg /dL should receive education about proper nutrition and how to reduce the risk of exposure. They should also be retested in 3 – 4 months.

- Children with blood lead levels of 15 – 19 µg /dL should be retested in 3 – 4 months. They should also receive individual instruction including education about proper nutrition, how to reduce the risk of exposure, identification of exposure sources, and screening for iron deficiency anemia.

- Children with blood lead levels of 20 µg /dL or more should receive individual instruction as described above and should be medically evaluated.

Children with blood lead levels of 10 or above need to be confirmed by a blood sample from a vein. The results of the venous sample will be mailed to you as soon as they are received from the laboratory. A nurse will contact you about your child's blood lead level and follow up with you based on CDC's recommended action levels.

If you would like more information, please contact your primary care physician.

Name_____ ID#_____

Blood lead level_____µg /dL

Test performed at _____ Date _____

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
EQUIPMENT MALFUNCTION RECORD
APPENDIX H

_____ LeadCare Analyzer Serial #_____

_____ LeadCare Analyzer Serial #_____

_____ LeadCare Analyzer Serial #_____

Technician: _____ Date:

Describe malfunction:

Describe corrective action:

Malfunction corrected: _____ Yes _____ No

Comments:

Was Customer Service/Technical Support called: _____ Yes _____ No

If yes, name of tech:

Reference # :

Time called: _____ Date: _____

Technical support return call: time: _____ Date: _____

NOTE: Instrument malfunctions must be communicated to the laboratory supervisor or lab technician and this completed form must be put in the Instrument Maintenance Book.

Reviewed by:

Lab Technician: _____ Date:

Lab Program Supervisor: _____ Date:

CHILDREN'S LEAD SCREENING PROGRAM OF IDAHO
LEAD OUT OF CONTROL FORM
APPENDIX I

To be completed whenever one or more control measurement exceeds the control limits as specified on the control vials.

Date:_____ Instrument:_____

Control Values: Level 1 _____ Limits
Level 2 _____ Limits

Repeat the out of control sample. If the second run is within the limits, it was due to random error and the run can be accepted.

Was the run accepted? Yes or No

(If yes, sign and date at the bottom of this form)

If no, begin troubleshooting:

1. Were the controls prepared properly? Y or N
2. Were the controls stored properly? Y or N
3. Are the controls within their open expiration date? Y or N
4. Are the treatment reagents in date? Y or N
5. Was the analyzer calibrated properly? Y or N
6. Were the analyzer and reagents at room temperature? Y or N
7. Was the pipette working properly? Y or N
8. Was the instrument working properly? Y or N

If all questions were answered yes, rerun the control. If any question was answered no, correct the problem and rerun the control.

Is the control measurement now within acceptable limits? Y or N

Corrections made:
_____
_____
_____

- If the control value is still outside acceptable limits, contact the ***LeadCare Customer Service Center.***
  Instructions received: Y or N
  Results:_____
  _____
  Problem resolved: Y or N
  Technician: _____ Date: _____

Run was accepted:
Signature: _____ Date: _____