



TX CLPPP News

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Spring 2008



Environmental Lead Investigation...

A Letter from DSHS to a Medical Provider

Dear Doctor John Bishop:

At your request, we performed a public health survey for lead exposure at the home of your patient, Julie Smith, on November 21, 2005. The objectives of the survey were to identify likely sources of lead exposure in the home and provide guidance to the family and you in reducing or eliminating lead exposure for Julie.

Background

Julie and her stepmother have lived at the same residence since she was two weeks old. The house, built in the 1950s, has peeling and chipping paint on the outside and on the detached garage. Remodeling and renovation occurred four years prior to Julie's birth. No remodeling or renovation at the residence has occurred since. According to the stepmother, Julie does not put non-food items in her mouth.

Bare soil surrounds the house and detached garage. Julie often plays outside on the porch, by the porch window, and around the bare soil area by the detached garage. The stepmother stated she often gives Julie a bath after playing outside.

Lead Sources Found in the Survey

We used an X-ray fluorescence (XRF) analyzer; a non-destructive lead-based paint testing method, to test the house's interior and exterior painted surfaces. Many of the dwellings interior components tested negative for lead-based paint. However, the exterior of the home and the detached garage tested positive for lead-based paint.

We sent dust wipe samples from the entrances, window seals, and floors in the interior of the dwelling to the Texas Department of State Health Services laboratory for testing. The results were below the laboratory's minimum reporting limits of 40 mcg/ft² for floors and 250 mcg/ft² for interior window sills.

Inside!

Cover Story:

Environmental Lead Investigation...
A Letter from DSHS to a Medical Provider

What is an Environmental Lead Investigation (ELI)?.....	3
What is the difference between an ELI and an home visit?.....	3
Who is responsible for ordering an ELI?.....	4
Pb 101: Request for Environmental Lead Investigation	5
How long does an ELI take to complete?.....	6
New Blood Lead Screening Plan for Texas Children.....	6
QUIZ, Funding, and Resources	7

Continues on page 2

We took composite soil samples from the play area around the house and detached garage. Laboratory results indicated high lead concentrations in the soil surrounding the house and detached garage, ranging from 990 – 2850 parts per million (ppm). A soil-lead hazard from lead-based paint is present when a play area sample of bare soil is equal to or greater than 400 parts per million (ppm); or in the rest of the yard (i.e., non-play areas) when the bare soil sample is equal to or greater than 1,200 ppm. The contaminated soil surrounding the house and detached garage presents a potential risk of lead exposure to Julie.

Summary of Recommendations

Based on the answers to the interview questions, observations at the home made by the lead risk assessor (LRA), and XRF results, we made the following recommendations to the parent at the time of the visit:

- Use a Department of State Health Services (DSHS) certified lead abatement firm to do any home lead abatement. A list of DSHS certified lead abatement firms is available at this web site: www.dshs.state.tx.us/elp.
- Contact the County for available funding for lead abatement.
- Do not allow Julie to eat or put non-food items in her mouth.
- Ensure that Julie washes her hands and face before eating, before bedtime, and after play.
- Prevent Julie from playing in the bare soil around the house and detached garage.
- Plant grass and bushes where bare soil is located to create a barrier.
- Serve Julie three (3) regular nutritious meals and two (2) snacks including fresh or dried fruits, vegetables, milk, cheese, meats, and iron-containing cereal. Following this diet is important because balanced meals with food groups high in calcium, iron, and vitamin C can reduce the amount of lead that is absorbed.
- Follow recommendations made by the healthcare provider for any blood lead sampling and follow-up medical care.

DSHS staff is concerned about children's health, and we wish to collaborate with you to address these issues in controlling sources of lead exposure. If you have additional questions or need further assistance or information, please contact the Texas Childhood Lead Poisoning Prevention Program (TX CLPPP) by calling 1-800-588-1248.

Sincerely,

John Smith

John Smith, LRA
Texas Department of State Health Services

The Cover Story was taken from an actual Environmental Lead Investigation (ELI) in Texas. The ELI was completed after the medical provider followed TX CLPPPs recommended criteria (see table, "Criteria Eligibility for ELI", located on bottom of page 4) for an ELI. The names of the medical provider, child, and DSHS staff member were all changed to protect confidentiality.

What is an Environmental Lead Investigation?

An environmental lead investigation (ELI) is the on-site investigative activity performed by a lead risk assessor (LRA) to:

1. Find lead hazards or human behaviors that may contribute to a child's elevated blood lead level (EBLL), and
2. Recommend remediations.

DSHS follows Centers for Disease Control and Prevention (CDC) guidelines and Texas law to conduct an ELI for a child diagnosed with an EBLL (*see table, "Criteria Eligibility for ELI", located on bottom of page 4*).

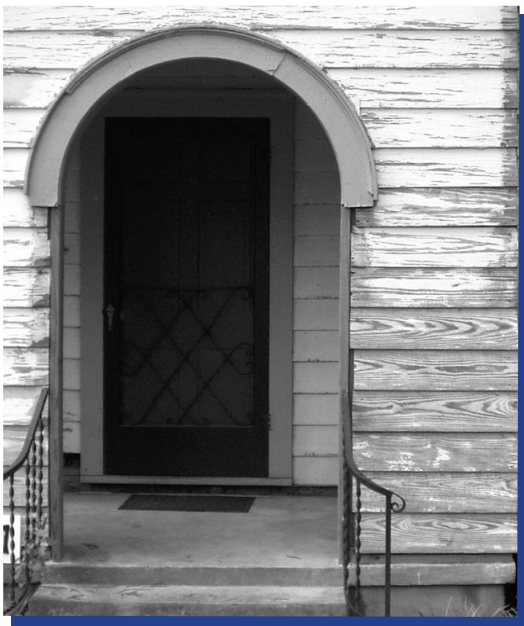
LRAs are certified by DSHS to perform ELIs at places where the child spends time, including the primary residence of the child. The LRA may investigate other sites such as daycare centers, next-door neighbors, and relative's

homes to identify all potential sources of lead exposure.

When conducting the investigation, the LRA uses a parent questionnaire to interview and interact with the parent or guardian. The LRA records observations relevant to the child's lead exposure and documents the interviewee's responses.

The ELI may include the collection and laboratory analysis of suspected sources of lead exposure; such as paint chips, dust, soil, water, and home remedies. If necessary, x-ray fluorescence (XRF) analyzer, may be used to test interior and exterior paint. However, not all LRAs have access to these devices; XRFs are highly expensive to purchase and maintain. In cases when XRFs are not available, the LRA may collect paint samples for laboratory analysis.

What is the difference between an ELI and a home visit?



It is important to distinguish between a home visit and an ELI. The LRA performs the ELI and is the only professional specifically trained, certified, and authorized by the state to provide that service.

In some cases, a home visit by a public health nurse or social worker may precede the ELI. Although beneficial for follow-up care, the home visit does not replace the ELI that the LRA performs.

At times, the LRA and case manager will work together on a joint visit. Opportunities to collaborate on investigations by the LRA and case manager are ideal, efficient, and effective for all parties involved.

Who is responsible for ordering an ELI?

Because of the changing nature of the healthcare industry, clinicians see children under various consultative arrangements and conditions. Nevertheless, the healthcare provider that diagnosed a child with an EBLL is ultimately responsible for submitting a Pb-101, “Request for Environmental Lead Investigation”, to TX CLPPP (*see form on page 5*).

When the TX CLPPP receives a report of a child with a BLL 15 mcg/dL or greater, we mail a notification letter to the child’s medical provider. Included with the letter is an ELI request form (*see form on page 5*). To ensure you are using the most current form, always visit the TX CLPPP website for updates.

<http://www.dshs.state.tx.us/lead/provider>

TX CLPPP enlists your help as a healthcare provider, to convey to the child’s parent or guardian the importance of cooperating with the investigator. The investigator needs to obtain the parent’s consent to enter their private residence and perform the ELI. Most importantly, the parent needs

to understand the primary reason the investigator is at the residence is to ask questions; to look in and around the house; and to collect information that may locate sources of lead exposure causing the EBLL.

Follow the three steps below to request an ELI.

1. Review the child’s blood lead history to ensure the child’s BLLs meet TX CLPPP criteria for an ELI (*see table below, “Criteria Eligibility for ELI”*).
2. Submit a completed Pb-101, when you determine the child is eligible for an ELI. If you previously submitted an ELI request and received an investigation completion report, it is not necessary to submit another request for that same patient, unless the address has changed.
3. Fax or mail your completed ELI request to the fax number or address on the bottom of the form. Check our website to make sure that you are using the most current and up-to-date Pb-101 form.

Criteria Eligibility for ELI

- | |
|--|
| 1. The child’s venous blood lead level (BLL) test result is at 20 micrograms lead per deciliter (mcg/dL) and higher, or |
| 2. Two separate venous BLL tests collected at least 12 weeks apart that are in the 15-19 mcg/dL range. |

Note: A capillary test, also referred to as a finger stick, is allowed when a child is initially screened for lead. However, if the capillary test results is 10 micrograms per deciliter or greater, a venous blood draw must be used to diagnosis the child as having an elevated blood lead level. TX CLPPP will not authorize an ELI based on a capillary test.



Form Pb-101: Request for Environmental Lead Investigation

Provider: Follow these 4 steps to request an environmental lead investigation for a child whose blood lead level meets one of the conditions in Step 3 below.

1. Complete this provider information section, sign, and date the request

Provider Name: (Please Print) _____

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: (_____) _____ - _____

Signature _____ Job Title: _____

Date: _____

2. Complete this patient information section

Child's Name: _____

Parent's Name: _____

Child's Date of Birth: ____ - ____ - ____ Phone : (_____) _____ - _____
mm dd yyyy

Physical Address (not P.O. box or Rural Route #): _____

City: _____ State: TX Zip: _____

3. Check the 1 criteria below that the child meets for this environmental lead investigation - include blood lead result(s)

Patient has a **venous** lead level of 20 mcg/dL or greater.

Date of Test _____ Level _____ Testing Lab _____

Patient has 2 **venous** blood lead results from 15 to 19 mcg/dL on each of two tests at least 12 weeks apart.

Date of Test _____ Level _____ Testing Lab _____

Date of Test _____ Level _____ Testing Lab _____

4. FAX TO 512-458-7699, Texas Childhood Lead Poisoning Prevention Program, Environmental Specialist



How long does it take to complete the ELI?

TX CLPPP does not conduct the ELI. TX CLPPP reviews the ELI request, screens it for criteria eligibility, and forwards it to the appropriate investigation unit. The ELI will be performed by another branch within DSHS, or by a local health department.

To avoid delays in performing the ELI, the Pb-101 must contain the most current contact information for the child; including the parent's availability, the home phone number, and home address.

Although the ELI may only take a few hours to complete, obtaining the testing results and finalizing the report is a lengthy process. When all analysis results are complete, the agency conducting the investigation will send a summary report of their findings to the healthcare provider and parent/guardian. If the ELI is conducted at a rental property, the property owner also will receive the report.

TX CLPPP will continue to follow-up on the ELI request until it is completed and reported to the healthcare provider.

New Blood Lead Screening Plan for Texas Children

Old Screening Plan

In 2001, TX CLPPP, with the assistance of a Screening Advisory Group, developed a blood lead screening plan for Texas Children.

The plan recommended that all Texas Children be tested for lead poisoning at age 12 months and again at age 24 months. This schedule is required for all children enrolled in Texas Health Steps/Medicaid.

New Screening Plan

In December 2006, TX CLPPP again convened a Screening Advisory Group, to review blood lead testing data and decide on a targeted plan. In addition to focusing on high-risk populations, the group chose to focus on census tracts as areas of concern.

However, realizing that health care providers could not readily identify the census tract for a child, the Group chose the next unit of identification, a zip code. A list of targeted zip codes was created that contained one or more census tracts that fit the high-risk categories.

Effective April 1, 2008, the new blood lead screening plan for Texas Children was implemented.

The "Blood Lead Testing and Screening Guidelines for Texas Children: Quick Reference Guide", can be obtained by visiting TX CLPPP's website:

www.dshs.state.tx.us/lead.

QUIZ

1. T/F The lead risk assessor (LRA) is the only professional specifically trained, certified, and authorized by the state to perform an environmental lead investigation (ELI).
2. T/F TX CLPPP will authorize an ELI based on a capillary blood lead level (BLL).
3. TX CLPPPs Criteria Eligibility for an ELI is/are:
 - a. The child's venous blood lead level (BLL) test result is at 20 micrograms lead per deciliter (mcg/ dL) and higher.
 - b. Two separate venous BLL tests collected at least 12 weeks apart that are in the 15-19 mcg/dL range.
 - c. Two separate capillary BLL tests collected at least 12 weeks apart that are in the 15-19 mcg/dL range.
 - d. Either a or c
 - e. Either a or b
4. The goal(s) of each ELI is/are:
 - a. to find lead hazards.
 - b. to discover human behaviors that may contribute to the child's elevated blood lead level.
 - c. to recommend remediations.
 - d. all of the above

Answers located on page 8

Possible Lead Funding Sources

www.rurdev.usda.gov/rhs/mfh/brief_mfh_hpg.htm

www.orca.state.tx.us/

www.glo.state.tx.us/vlb/vhip/index.html

www.rurdev.usda.gov/rhs/sfh/brief_repairloan.htm

www.eere.energy.gov/weatherization/about.html

Provider Resources Available Through TX CLPPPs website: <http://www.dshs.state.tx.us/lead/providers.shtm>

Forms

Pb-100: Lead Assessment Interview Tool

Pb-101: Request for Environmental Investigation

Pb-102: Provider Questionnaire

Pb-104: Physician Checklist for Parent Education Topics

Pb-109: Physician Reference on Follow-up Testing

Pb-110: Risk Assessment for Lead Exposure (English and Spanish)

Literature

1-313: A Guide for Educators: What all New Parents Need to Know... (Brochure)

1-313: Childhood Lead Testing: Getting a Good Specimen (Poster)

More Resources

Recommended Blood Lead Screening Guidelines for Texas Children: Quick Reference Guide

Childhood Blood Lead Testing: Getting a Good Specimen Poster

TX CLPPP Newsletters for Health Care Providers

<http://www.dshs.state.tx.us/lead>

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Picture, Left: Some candies from Mexico, and other countries, are made with chili and tamarind, and may contain lead.

Answers to questions on page 7

1.True (see page 3) 2.False (see page 4), 3.e (see page 4) 4.d (see page 3)

Local Health Department CLPPP Programs

City of Dallas	4500 Spring Ave.	Dallas, TX 75210	214-670-7663
City of Houston	8000 N Stadium Dr., 6th Floor	Houston, TX 77054	713-794-9349
Harris County	2223 West Loop South	Houston, TX 77027	713-439-6126
San Antonio Metro	911 Castrovilla Rd.	San Antonio, TX 78237	210-434-0077



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