



Florida's Childhood Lead Poisoning Prevention Program

Lead Poisoning Screening & Case Management Field Guide

*Guidance for County Health Departments
Serving Children and Families Affected by Lead Poisoning
2010*



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I. GLOSSARY OF KEY TERMS AND ACRONYMS

- **Abatement** - The removal of either the building component or the paint itself, or the near permanent enclosure of lead-based paint hazards. Abatement should last 20 years or more.
- **Bioavailable** - A substance that is readily absorbed and used by the body.
- **BLL** - Blood Lead Level; usually measured in micrograms per deciliter ($\mu\text{g}/\text{dL}$).
- **CDC** - Centers for Disease Control and Prevention (a division of the United States Department of Health and Human Services' Public Health Service).
- **CHD** - County Health Department (those specific to Florida for this document).
- **Chelation Therapy** - The use of chelating agents (chemical compounds that bind to metals) to remove toxic metals, such as lead, from the body.
- **Clearance Standards** - The maximum allowable lead levels on surfaces (e.g., floors, windowsills, and window wells) after a residence has undergone lead abatement.
- **Clearance Test** - A visual and series of dust wipe samples that ensures all lead hazard control work required in a unit was completed, and that no lead-based paint hazards remain.
- **CLPPP** - Childhood Lead Poisoning Prevention Program.
- **CMS** - Children's Medical Services (this Florida Department of Health program provides a family-centered and coordinated system of care for children with special health care needs).
- **Confirmed Blood Lead Level** - a blood lead level greater than or equal to (\geq) 10 $\mu\text{g}/\text{dL}$ from a venous specimen, or blood lead level greater than or equal to (\geq) 10 $\mu\text{g}/\text{dL}$ from *TWO* capillary specimens taken *within three months* of one another.
- **Consumer Products** - This refers to items such as mini blinds, jewelry, charms, pottery, ceramic dishware, leaded glass, or cosmetics. These items may contain lead and pose as lead exposure hazards.
- **DOH** - Florida Department of Health.
- **Drip Line** - The area under the edges of a roof.
- **EBLL** - Elevated Blood Lead Level; defined as any blood lead level greater than or equal to 10 micrograms per deciliter ($\geq 10 \mu\text{g}/\text{dL}$).
- **Environmental Investigation** - An investigation by trained personnel at a child's residence (or any secondary addresses where the child spends significant amounts of time) to identify lead hazards.
- **Environmental Health Investigation Report** - A report that summarizes findings from an environmental health investigation.
- **EPA** - United States Environmental Protection Agency.
- **Home or Folk Remedies** - A treatment for a disease or other ailment that employs certain foods or other common household items that may or may not have actual medicinal properties, and is used as a result of tradition or habit.
- **HUD** - United States Department of Housing and Urban Development.
- **Interim Controls** - A set of measures to reduce exposure to lead hazards. Interim control measures include special cleaning, repairs, paint stabilization, enclosure, and containment. For a full discussion, see HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.
- **Merlin** - Florida Department of Health reportable disease surveillance system.
- **$\mu\text{g}/\text{dL}$** - Micrograms per deciliter, the usual unit of measure for blood lead levels.
- **PCP** - Primary Care Provider; the health professional who oversees a child's care, usually a physician, nurse practitioner, or physician's assistant.
- **Pica** - Compulsive eating of non-nutritive substances, such as dirt or flaking paint.
- **Primary Prevention** - Preventing a problem before it occurs. Primary prevention of lead poisoning would eliminate lead sources, thus preventing exposure.
- **Secondary Prevention** - Responding to a problem after it has been detected. Secondary prevention of lead poisoning involves identifying children with EBLLs, and eliminating or reducing their lead exposure.

- **Take-Home Exposure** – Lead dust that is carried into the home by caregivers on their clothes, skin or hair from occupations or hobbies that involve lead.
- **WIC** – Special Supplemental Nutrition Program for Women, Infants and Children. WIC serves to safeguard the health of low-income women, infants and children up to age five who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care.

II. INTRODUCTION

The **Lead Poisoning Screening and Case Management Field Guide** (Field Guide) is a Florida Department of Health (DOH) policy that serves as a companion document to the **Childhood Lead Poisoning Screening and Case Management Guide** (Guide), published by DOH in 2008. The Guide was developed in partnership with recognized medical groups in Florida, and in accordance to 381.985 of the Florida Statutes. It is referenced in 64E-27.001 Florida Administrative Code (F.A.C).

The purpose of this document is to assist designated county health department (CHD) case managers and their case management team members, including environmental health investigators (Environmental Protection Agency (EPA) certified lead risk assessors), in the provision of timely and effective interventions for lead poisoning in children less than 72 months of age. The guidance contained herein can also be followed by CHDs for individuals greater than 72 months of age with lead poisoning; however, in depth follow-up of this age group is not required. This Field Guide provides policies, procedures and suggested tools for CHD lead poisoning case managers. It provides general information about the health effects, sources of exposure, and prevention activities related to childhood lead poisoning. A summary of Florida's targeted blood lead screening policy is also included.

III. BACKGROUND INFORMATION FOR THE CHD LEAD POISONING CASE MANAGEMENT TEAM

A. Preparing for the Role of Designated Lead Poisoning Case Manager and/or the EPA Certified Lead Risk Assessor

Lead poisoning case management is often carried out by a team of individuals at the local level. This section provides important information and links to trainings for the case management team. There are two important roles performed by CHD staff: the designated lead poisoning case manager and the EPA certified lead risk assessor. Each CHD is required to have a designated lead poisoning case manager who is responsible for coordinating care and ensuring that all team members, including the caregiver, work together and stay in close communication. Designated CHD case managers need not provide ALL follow-up care, but they are responsible for seeing that needed care is provided, including medical follow-up. CHDs are also required to have access to an EPA certified lead risk assessor who can provide an environmental health investigation when needed. In some counties, the designated lead poisoning case manager and the EPA certified lead risk assessor are one in the same. In other instances, a CHD will work with a neighboring CHD to obtain the services of an EPA certified lead risk assessor for an environmental health investigation.

To prepare for these important roles, designated lead poisoning case managers and EPA certified lead risk assessors should become knowledgeable of the information provided in this document and should review related documents or participate in necessary trainings. Those using this Field Guide are encouraged to take advantage of the additional resources and tools listed throughout this guide. Tools and resources are indicated with the following icons.



Resources for Case Managers



Tools for Case Managers

Cultural Competence

Given Florida's diverse population, it is imperative that case managers and other health care professionals are knowledgeable about the communities they serve. With this knowledge, case managers can better serve their communities and address barriers related to eliminating childhood lead poisoning. The U.S. Department of Health and Human Services (HHS) defines cultural competence as a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations (HHS, 2008). Cultural competency is important because it focuses on providing health care services that are respectful of and responsive to the health beliefs, practices, and cultural and linguistic needs of diverse patients. Providing culturally competent services can help bring about positive health outcomes (HHS, 2008).

To obtain more information related to cultural competency, please visit the following HHS, Office of Minority Health website.

<http://www.thinkculturalhealth.org/>

Becoming an EPA Certified Lead Risk Assessor

Individuals conducting Environmental Health Investigations (e.g., Elevated Blood Lead Level (EBLL) Investigations), must receive specialized training and become certified by the EPA to complete lead risk assessments. For more information on becoming an EPA certified lead risk assessor, visit the following website.

<http://www.epa.gov/lead/pubs/traincert.htm>

Conducting a Visual Lead Assessment in the Home

Designated case managers and members of the case management team who want to learn more about conducting a visual lead assessment can complete an online training produced by the U.S. Department of Housing and Urban Development (HUD). Note that a visual lead assessment is not considered a complete Environmental Health Investigation or Lead Risk Assessment because environmental sampling is not conducted. A link to the visual lead assessment training is provided below.

<http://www.hud.gov/offices/lead/training/visualassessment/h00101.htm>

B. Florida's Case Definition of Childhood Lead Poisoning

A confirmed case of lead poisoning is defined as an individual of any age with a blood lead level greater than or equal to (\geq) 10 $\mu\text{g}/\text{dL}$ from a venous specimen, or blood lead level greater than or equal to (\geq) 10 $\mu\text{g}/\text{dL}$ from **TWO** capillary specimens taken **within three months** of one another. This case definition is established in the "Surveillance Case Definitions for Select Reportable Diseases in Florida." This document is produced by the DOH Bureau of Epidemiology. Childhood lead poisoning is defined as a confirmed case of lead poisoning in a child less than 72 months of age.

C. Health Effects of Lead Poisoning

Lead poisoning is a serious condition in children and adults. The Centers for Disease Control and Prevention (CDC) ranks Florida eighth in the nation based on an estimated number of 22,000 children with elevated blood lead levels residing in the state (*CDC 2003 Program Announcement 03007, Appendix III*). Lead exposure in children can cause learning disabilities, mental retardation, impaired visual and motor functioning, stunted growth, behavioral problems, neurological and organ damage, and hearing loss (Agency for Toxic Substances and Disease Registry [ATSDR], 1995). In adults, exposure is associated with hypertension and reproductive complications. Lead is also highly toxic to the unborn fetus because it can breach the placenta, and result in birth defects and developmental delays (National Safety Council, 2004).

Lead poisoning occurs when lead is absorbed by the body, resulting in a confirmed blood lead level of $\geq 10 \mu\text{g/dL}$. Most individuals are exposed to lead by ingestion (eating) and inhalation (breathing). Lead, a heavy metal that does not break down, can accumulate in the body causing serious and permanent health problems to people of all ages. Lead poisoning can be acute or chronic. Acute lead poisoning occurs when an individual ingests or inhales a large amount of lead into the body over a short period of time. Chronic lead poisoning occurs when small amounts of lead are ingested or inhaled over a period of several months or years.

Overall, lead poisoning diminishes the quality of life in affected children and adults. The direct and indirect costs associated with the care, treatment, and loss of injured persons' potential earnings affects society as a whole by placing undue burden on education, health, and social service systems. Several studies have estimated the annual cost of lead poisoning to American society is more than 43 billion dollars (Landrigan, et al., 2002).

D. Sources of Lead Exposure

1. **Lead-Based Paint Hazards:** Lead-based paint found in older homes is still the most important source of lead exposure in the environment. As homes with lead-based paint age, the paint begins to deteriorate. Deterioration is exacerbated around friction surfaces, surfaces affected by weatherization, and areas exposed to leaks or other types of structural damage. The dust created when paint breaks down is easily accessible to children since it often settles on floors or bare soil where they are most likely to play. Renovation or construction work done in older homes containing lead-based paint or other leaded material, such as ceramic tile, pipes or glass, can also create lead dust in the environment of a child.

Although it is difficult to determine the actual number of properties in Florida that contain lead-based paint hazards, a review of 2000 U.S. Census data for Florida indicates that there are approximately 433,000 housing units built before 1950 and approximately 2 million housing units built before 1970. This is a concern because lead-based paint containing up to 50% lead was in widespread use through the 1940s. The use and manufacture of lead-based paint declined during the 1950s and thereafter; however, lead-based paint continued to be available for use in residential dwellings until 1978.

2. **Take-Home Lead from Occupations and Hobbies:** A number of businesses and industries use lead or lead products in Florida. By-products from these industries have been linked with elevated blood lead levels in adults and children. Parents or caretakers whose occupations or hobbies expose them to lead have the potential to transfer hazardous lead dust from their place of work or recreation to the car, home or yard where it becomes accessible to young children or women of childbearing age. This type of exposure is called "take-home" exposure. A detailed list of high risk industries, occupations and hobbies is included in **Appendix B**.
3. **Consumer Products:** In Florida, consumer products containing unsafe levels of lead are a small yet concerning source of lead exposure to children. Products of significance include children's jewelry, toys, vinyl mini-blinds, lead-glazed pottery, fishing lures and sinkers, tile, and ammunition. To prevent the use of lead contaminated products, the Childhood Lead Poisoning Prevention Program created the Lead Alert Network. This network notifies the public about consumer products that have been recalled due to their lead content. Individuals may join the Lead Alert Network by visiting the following Childhood Lead Poisoning Prevention website:

<http://www.doh.state.fl.us/environment/community/lead/index.html>. For information on previously recalled products with unsafe levels of lead, please refer to the following Consumer Product Safety Commission (CPSC) website: <http://www.cpsc.gov/>

4. **Home or Folk Remedies and Cultural Practices:** Some common home or folk remedies and/or cultural practices involve lead. These practices include giving children azarcon or greta for health ailments, using kohl or surma for face and body painting or decoration, and eating imported candies. A detailed list of home or folk remedies and cultural practices that use lead is included in **Appendix C**.
5. **Hobby/Occupational Practices:** Using lead-glazed or painted pottery, hobbies and occupations associated with cottage industries such as battery recycling and car repair may be a source of lead exposure. A detailed list of high risk industries, occupations and hobbies that involve lead use is included in **Appendix B**.

E. At-Risk Populations

Individuals from all social and economic levels can be affected by lead poisoning. However, children under the age of 6 years are considered to be at risk because they tend to put their hands or other objects into their mouths, they absorb a greater percentage of lead, and their developing bodies are more vulnerable to the effects of lead. Children at the greatest risk are those 9 months of age to 2.5 years of age, and those living at or below the poverty line that live in older housing.

F. Funding for Lead Poisoning Case Management (*Medicaid Reimbursement*)

Funding availability is of primary importance to CHDs responsible for providing case management for lead poisoned children. Funds to cover the cost of case management activities are available to all CHDs through the Medicaid Cost Based Reimbursement agreement between the Florida DOH and the Agency for Health Care Administration (AHCA). Under the agreement, all activities related to the direct case management of a lead poisoned individual (adult or child) are considered “allowable.” This means the total cost of lead poisoning case management activities can be reported in the CHD cost reports at the end of each fiscal year. These funds will be included in the calculation of the CHDs clinical reimbursement rate, and can be collected by the CHD during the following fiscal year.

Given the importance of ensuring the availability of funding to cover the cost of providing case management services, CHDs should keep detailed records of the salary, equipment, and supply costs directly associated with lead poisoning case management activities during the fiscal year (July 1 – June 30). These costs must be provided to the CHD budget office in order to be recorded in the CHD Medicaid Cost Based Reimbursement Cost Reports. These reports are due annually to the DOH Budget Office in Tallahassee, FL each November. In addition, CHDs must ensure that funding is designated for each fiscal year to cover anticipated costs of lead poisoning case management.

IV. BLOOD LEAD SCREENING GUIDELINES

A. General Lead Screening Recommendations for Children Less than 72 Months of Age

Florida blood lead screening policy aims to increase screening of children at high-risk, including those living in high-risk communities. Since not all children face an equal level of risk of lead poisoning, those recommended for screening include:

- **Children less than 72 months of age living in high-risk zip codes. A high-risk area is defined as a Census block-group with greater than or equal to 27 percent pre-1950 housing, or greater than or equal to 74 percent pre-1970 housing.**
- **Child having a sibling who has been lead poisoned, or resides in a building where a person has been lead poisoned.**
- **Children who are Medicaid eligible.**
- **Child who exhibits delayed cognitive development or other symptoms of childhood lead poisoning.**
- **Children adopted from outside the U.S.**
- **Children in foster care.**
- **Child who is a refugee or immigrant.**
- **Any child under 72 months of age with at least one of the risk factors listed on the Lead Poisoning Risk Assessment Questionnaire (Appendix D and E).**

B. Special Screening Recommendations for Newly Arrived Refugee Children 6 Months of Age to 16 Years of Age (*Information in this section was obtained from the CDC 2009 Refugee Lead Screening Guidelines*)

Studies indicate that age is not a significant risk factor for elevated BLLs among refugee children. Although the risk for lead exposure among children older than 6 years of age may be the result of exposure in their country of origin, many of the prevailing health, social, and economic burdens accompany the children to the U.S., thus suggesting the value of screening ALL refugee children at time of arrival. Therefore, the CDC and DOH recommend:

1. Blood lead testing of ALL refugee children 6 months of age to 16 years of age at entry to the U.S.
2. Repeat blood lead testing of ALL refugee children 6 months of age to 6 years of age and older children (if warranted) 3 to 6 months after refugee children are placed in permanent residences, regardless of initial test results.
 - a. Children who mouth or eat non-food items, especially soil, which is common among certain refugee populations, are at risk for lead poisoning, regardless of the age of their housing.

- b. A New Hampshire case study demonstrates that although some children had elevated BLLs when they arrived in the U.S., the majority of the children did not. Despite such findings the follow-up screening, which was conducted on average 60 to 90 days after the placement of the children in the state and in their permanent residences, revealed elevated BLLs that ranged from 11 to 72 µg/dL.
- c. The refugee status for most of the children entitles them to Medicaid, WIC, and other social services for at least 8 months after their resettlement, regardless of family financial status. Medicaid can cover the cost of the follow-up blood lead test.

Additional Early Post-Arrival Evaluation and Therapy

3. Upon U.S. arrival all refugee children should have nutritional evaluations performed, and should be provided with appropriate nutritional and vitamin supplements as indicated.
 - a. Pre-existing health burdens such as chronic malnutrition, along with cultural, language, and economic barriers, compound refugee children's risk for lead poisoning. For example, iron deficiency, prevalent among refugee children, increases lead absorption through the gastrointestinal (GI) tract.
 - b. At a minimum, the nutritional evaluation should include an evaluation of the children's iron status, including a hemoglobin/hematocrit and one or more of the following: an evaluation of the mean corpuscular volume (MCV) combined with red cell distribution width (RDW); ferritin; transferrin saturation; or reticulocyte hemoglobin content.
4. Evaluate the value of iron supplementation among refugee children. Study of iron supplementation in refugee children will provide needed data on its efficacy to reduce nutritional deficiencies, and thus reduce lead absorption through the GI tract.
5. Follow-up testing and evaluation should be coordinated with the refugee health case manager, where available.



Resources for Case Managers

- *Childhood Lead Poisoning Screening and Case Management Guide* (Florida Department of Health, 2008)
<http://www.doh.state.fl.us/environment/medicine/lead/pdfs/ChildhoodLeadPoisoningScreeningandCaseManagementGuide.pdf>
- Lead Poisoning Prevention in Newly Arrived Refugee Children: Tool Kit
http://www.cdc.gov/nceh/Lead/Publications/RefugeeToolKit/Refugee_Tool_Kit.htm
- Screening for Lead at the Domestic Refugee Medical Examination
http://www.cdc.gov/ncidod/dq/refugee/rh_guide/lead/lead.pdf



Tools for Case Managers

- Lead Poisoning Risk Assessment Questionnaire in English **Appendix D**
- Lead Poisoning Risk Assessment Questionnaire in Spanish **Appendix E**

V. POLICIES FOR LEAD POISONING SCREENING AND CASE MANAGEMENT

A. County Health Department Case Reporting Policies

Lead poisoning is listed as a notifiable disease in Chapter 64D-3 F.A.C. CHDs, healthcare providers, laboratories and other public health personnel are required to report the occurrence of notifiable diseases as defined in the rule. Laboratories, health care providers and CHDs that conduct analysis of blood lead samples are required to report **all** blood lead tests. This includes results received through the use of portable testing devices, such as the Lead Care II Analyzer. All blood lead test reports must be received in an approved electronic format, and must include all information as required by Chapter 64D-3, F.A.C., and Section 381.985, Florida Statutes (F.S.).

In addition, each CHD has a responsibility to investigate cases of all notifiable diseases. When a CHD receives an elevated blood lead laboratory report, the designated case manager or designee is required to enter the child's demographic and risk information into the Merlin system. In some instances, CHDs will simply need to act upon reports already in Merlin through the Electronic Laboratory Reporting (ELR) system. Additional information about CHD requirements for reporting and investigating notifiable diseases is provided by the DOH Bureau of Epidemiology. Links to important resources are included below.



Resources for Case Managers

- CHD Epidemiology Guidebook
http://dohiws.doh.state.fl.us/Divisions/Disease_Control/epi/Guidebook/TOC.htm
- Surveillance Case Definitions for Select Reportable Diseases in Florida
http://www.doh.state.fl.us/disease_ctrl/epi/surv/CaseDefAug2008_ver1-2.pdf
- Laboratory Reporting Guidelines for Notifiable Diseases or Conditions in Florida
http://www.doh.state.fl.us/Disease_ctrl/epi/surv/LaboratoryPacket.pdf
- Health Care Practitioner Reporting Guidelines for Notifiable Diseases or Conditions in Florida
http://www.doh.state.fl.us/Disease_ctrl/epi/surv/PractitionerPacket.pdf
- Florida Administrative Code 64D-3
http://www.doh.state.fl.us/Disease_ctrl/epi/topics/64D-3_11-08.pdf

B. Legislative Authorization for Lead Poisoning Case Management

Lead poisoning case management activities are authorized under Section 381.985, F.S. The statute required the DOH to consult with recognized medical professional groups, and establish guidelines for lead poisoning case management. To this end, the *Childhood Lead Poisoning Screening and Case Management Guide* was published in January 2008. The guide follows recommendations from the CDC and the American Academy of Pediatrics. It was developed by DOH in consultation with medical professionals throughout the state. The guide also describes the lead poisoning case management guidelines for health care providers and CHDs (**Appendix A**). The guide was incorporated by reference into rule, and was distributed to health care practitioners and CHDs statewide in 2008.



Resources for Case Managers

- *Childhood Lead Poisoning Screening and Case Management Guide* (Florida Department of Health, 2008)
<http://www.doh.state.fl.us/environment/medicine/lead/pdfs/ChildhoodLeadPoisoningScreeningandCaseManagementGuide.pdf>

C. DOH Internal Operating Policy

The DOH Internal Operating Policy (IOP) CHILD 3 (shown below) requires each CHD to have a specified contact person to coordinate case management activities for all children who have confirmed blood lead levels of 10 µg/dL or greater. The case manager initiates care coordination following the receipt of an elevated blood lead level report from a physician or laboratory. Each CHD must also have access to an EPA certified lead risk assessor to conduct environmental health investigations as needed. Technical Assistance Guide (TAG) and Standard of Care (SOC) documents accompany the policy. Links to these documents are provided below.

Florida Department of Health INTERNAL OPERATING POLICY: CHILD 3

Follow-up of Children for Elevated Blood Lead Levels

Policy: Lead poisoning (confirmed blood lead levels of 10 µg/dL or greater) is a reportable condition in Florida. This policy requires each county health department to have a specified contact person to provide case management for all children less than six years of age who have been reported to the county health department with confirmed blood lead level test results of 10 µg/dL or greater. This contact person will ensure appropriate follow-up or case management as recommended by the Florida Childhood Lead Poisoning Prevention Program. In addition, this policy also requires county health departments to have access to an Environmental Protection Agency certified lead risk assessor/inspector who can conduct environmental health investigations for lead poisoning cases. Additional guidance is provided by TA-CHILD 4, "Risk Assessment, Screening and Follow-up of Children for Elevated Blood Lead Levels."

Authority: Chapter 381 F.S.
Effective Date: July 1, 2000
Revised: September 30, 2009

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

Date

For technical assistance on this policy, see TA-CHILD 4, the Childhood Lead Poisoning Screening and Case Management Guide, and the Childhood Lead Poisoning Screening and Case Management Field Guide.



Resources for Case Managers

- DOH Internal Operating Policies, Technical Assistance Guides and Standards of Care
<http://dohiws.doh.state.fl.us/Divisions/family%5Fhealth/policies/>

VI. LEAD POISONING CASE MANAGEMENT PROCEDURES

This section describes the timelines that CHDs must comply with when coordinating lead poisoning case management. It also provides detailed, step-by-step guidance to the CHD case managers responsible for the coordination of case management services. It follows the order of follow-up activities as defined in the Childhood Lead Poisoning Screening and Case Management Guide (**Appendix A**).

Case management requires a cooperative approach that includes case managers, physicians, care givers, EPA certified lead risk assessors, and referral agencies. The guidance provided herein is based on the CDC's March 2002 document entitled *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention*, and the DOH Childhood Lead Poisoning Screening and Case Management Guide (**Appendix A**) developed by the DOH in consultation with recognized medical groups in 2008.



Resources for Case Managers

- **Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention**
(CDC, 2002)
http://www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm
- **Childhood Lead Poisoning Screening and Case Management Guide**
(Florida Department of Health, 2008)
<http://www.doh.state.fl.us/environment/medicine/lead/pdfs/ChildhoodLeadPoisoningScreeningandCaseManagementGuide.pdf>

“A hallmark of effective case management is ongoing communication with the caregivers and other service providers, and a cooperative approach to solving any problems that may arise during efforts to decrease the child’s blood lead level and eliminate lead hazards in the child’s environment.”

- Managing Elevated Blood Lead Levels Among Young Children, CDC 2002

A. Time Frames for Providing Follow-up Blood Lead Testing and Case Management

Case management begins when the designated lead poisoning case manager receives a blood lead laboratory report with a blood lead level greater than or equal to 10 µg/dL from a physician or laboratory. The table below provides the required time frames for follow-up on lead poisoning cases, including case management activities and follow-up blood lead testing. **When**

coordinating a number of cases, children with the highest blood lead levels and those less than 2 years of age should receive priority. The following time frames were established by the CDC and the DOH.

Confirmed blood lead level	Time frame for initial home visit and EBLLEHI	Time frame for follow-up blood lead test
10-14 µg/dL (persistent)*	within 10 business days (consider)**	within 3 months
15-19 µg/dL	within 10 business days	within 2 months
20-44 µg/dL	within 5 business days	within 1 month
45-69 µg/dL	within 2 business days	within 48 hours
≥70 µg/dL	within 2 business days	admit to hospital; retest 1-3 weeks after discharge

* Two venous blood lead levels more than three months apart.

** Optional based on the risk of continuous lead exposure.

B. Step-by-Step Follow-Up Actions by the CHD Lead Poisoning Case Management Team

The steps described below follow the activities defined in the Childhood Lead Poisoning Screening and Case Management Guidelines (**Appendix A**). These are required actions for children less than 72 months of age. CHDs may also choose to follow this guidance when handling lead poisoned individuals greater than 72 months of age; however, these services are not mandated. Case managers can use the CHD Lead Poisoning Case Management Activity Checklist (**Appendix F**) to help ensure all appropriate services are provided. This checklist is not required; therefore, CHDs are free to modify it to best suit their needs.



Tools for Case Managers

- Childhood Lead Poisoning Case Management Guidelines **Appendix A**
- CHD Lead Poisoning Case Management Activity Checklist **Appendix F**

1. Notify the Caregiver, and Inform the Health Care Provider of Their Role

Upon receipt of a blood lead level report from a health care provider or other reporting entity, the designated case manager should notify the caregiver (family) in the report (**Appendix H**). In addition, the case manager should contact the health care provider to establish a means of communication that will be the foundation for long-term, successful care coordination.

a. Contact caregiver by phone and by mail.

Upon receipt of a blood lead level report, send a notice letter and health education materials to the caregiver. A list of family health education materials is provided as **Appendix G**. A sample family notification letter is provided as **Appendix H**. Also, contact the family by phone to stress the need for follow-up blood lead tests. Include, if possible, a suggested follow-up appointment date and time for the follow-up blood lead test in the notice letter. In addition, families should receive a copy of DOH lead poisoning brochures listed below. These brochures may be printed from the DOH Lead Program website:

<http://www.doh.state.fl.us/environment/medicine/lead/education.htm>. (NOTE: In cases where the caregiver cannot be contacted by phone, there is no response to the letter after 10 days, or the letter is returned undelivered, a visit should be made to the location address in an attempt to make contact. Language barriers and transitory residential patterns of some high risk target families may present obstacles to quick

initial contact of the caregiver. The use of local community-based resources may be necessary to facilitate initial contact, and ensure effective follow-up).

- Keeping Your Children Safe from Lead Poisoning: A Handbook for Parents
- Let's Be Lead Free: A Guide to Nutrition and Lead Poisoning

b. Inform the health care provider of their role.

Send a notification letter to the reporting physician with a copy of the caregiver notification letter (**Appendix H**) and a copy of the Lead Poisoning Case Management Guidelines in **Appendix A**. These materials should be provided to the physician as soon as possible. A sample physician notification letter is included as **Appendix I**.

In some cases, you may receive test results through Merlin that have not been reported directly by the physician. In this instance, the physician must also be educated about lead poisoning reporting requirements. Many counties have their own materials for this purpose; however, a sample letter for this purpose is provided as **Appendix J**.

PROVIDING ANTICIPATORY GUIDANCE TO PARENTS FOR BLOOD LEAD LEVELS APPROACHING ≥ 10 $\mu\text{g}/\text{dL}$

The DOH defines childhood lead poisoning as those children under 6 years of age with an elevated blood lead level (BLL) ≥ 10 $\mu\text{g}/\text{dL}$; however, evidence exists for subtle effects at lower levels (CDC, 2000). Research shows that blood lead levels below the current level of concern of 10 $\mu\text{g}/\text{dL}$ are linked to significant neurological and physical delays (Canfield, et al., 2003; Selevan, et al., 2003). For this reason, children with blood lead levels below 10 $\mu\text{g}/\text{dL}$ are important targets for educational interventions. An anticipatory guidance letter for parents of children whose blood lead levels are approaching 10 $\mu\text{g}/\text{dL}$ is included as **Appendix K**. CHDs may decide to provide this letter to inform parents within 30 days of a test result above 5 $\mu\text{g}/\text{dL}$. It is recommended that the letter be sent with educational information on lead poisoning prevention.



Tools for Case Managers

- Childhood Lead Poisoning Case Management Guidelines **Appendix A**
- List of Health Education and Outreach Materials **Appendix G**
- Sample Family Notification Letter for an Elevated Blood Lead Level **Appendix H**
- Sample Physician Notification Letter for an Elevated Blood Lead Level **Appendix I**
- Sample Letter to Providers Regarding Lead Reporting Requirements **Appendix J**
- Sample Family Anticipatory Guidance Letter **Appendix K**



Resources for Case Managers

- DOH Lead Poisoning Prevention Brochures and Other Educational Materials
<http://www.doh.state.fl.us/environment/medicine/lead/education.htm>

2. Report the Case in Merlin

A CHD may receive an elevated blood lead report from the physician, laboratory, or electronically through their Merlin Task List. The designated case manager is required to

review the data, enter the child’s demographic and risk information into the Merlin system (if not already available), and classify it as suspect or confirmed. This determination should be based on the lead poisoning case definition.

The case management report form is required to be completed in Merlin for confirmed cases. The Lead Poisoning Case Management Report Form is included in Merlin extended data screens. A paper copy is included as **Appendix L**. The information needed to complete the case management report form will be generated as the case management team completes the case management steps described below. If you have questions about completing the case management report form in Merlin, contact the DOH, Division of Environmental Health, Lead Poisoning Prevention Program at 850-245-4299.



Tools for Case Managers

- Lead Poisoning Case Management Report Form

Appendix L

3. Assess Family Needs, and Obtain a Health and Environmental History

Case managers should collect information on the child’s health, development (including behavioral characteristics), family dynamics, and environmental history in preparation for the development of the individualized care plan. To collect this information, the case manager should interview a caregiver who regularly observes the child’s activities and behaviors. A case manager should note that family dynamics and structure is also important as these dynamics will have an impact on the successful implementation of the care plan. Case managers are reminded to use cultural competence when working with diverse populations (see page 7).

a. Complete the Case management report form.

The needs assessment should include the collection of health and behavioral information such as symptoms of lead poisoning, nutrition and mouthing behaviors, anemia, play activities, etc. on the Lead Poisoning Case Management Report Form (**Appendix L**) in Merlin.

b. Ask additional questions from the Resident Questionnaire.

If risks are indicated on the Lead Poisoning Case Management Report Form (**Appendix L**) and/or if an environmental investigation will be performed, the case manager or the EPA certified lead risk assessor should further assess risks and explore potential contributors to lead exposure. The Resident Questionnaire in **Appendix M** includes a sample of questions to assist case managers in collecting needed information for identifying the source(s) of lead exposure. The questionnaire guides case managers in a review of general building conditions of the primary and secondary residences, and other places the child spends a significant amount of time. The age of housing, home hygiene, home ownership or rental status, and Section 8 status are also collected on the questionnaire. Information obtained from this questionnaire does not require Merlin reporting.



Tools for Case Managers

- Lead Poisoning Case Management Report Form
- Resident Questionnaire for Investigation of Lead Poisoning

Appendix L

Appendix M

4. **Develop a Care Plan**

The designated CHD case manager is responsible for developing and implementing a written case management care plan (**Appendix N**) for all confirmed cases of lead poisoning in children less than 72 months of age. The care plan should be based on the information collected during the needs assessment/collection of health and environmental history (case management report form in **Appendix L** and resident questionnaire in **Appendix M**). The care plan should be tailored to the specific needs and risks of the child and family.

a. **Develop the individualized care plan.**

Case managers can use the Lead Poisoning Care Plan Template in **Appendix N** to develop an individualized care plan. The caregivers should be included in the development of the care plan to ensure it meets their needs, is realistic, and includes their responsibilities in reducing the child's blood lead level (cleaning, maintaining appointments, designating safe play areas etc.). The role of external stakeholders, especially the physician/health care provider, should also be included in the care plan. With the written consent of the family, which can be obtained on the Consent for Release of Information included as **Appendix O**, the development of the care plan can also involve other partners such as the landlord, housing, and other related community or social service agencies. This helps partners understand the case, and also helps them understand how their role fits in with the activities being carried out by other members of the lead poisoning case management team.

The lead poisoning care plan should, at minimum, include activities in the following categories:

- Caregiver education
- Medical follow-up care
- Developmental assessment
- Nutrition assessment
- Referrals to community resources
 - Nutrition (WIC)
 - Developmental support services
 - Social services (as needed)
 - Housing services (reduction/elimination of environmental hazards)
 - Children's Medical Services (CMS)
- Blood lead screening for siblings and household contacts under 6 years of age



Tools for Case Managers

- | | |
|--|-------------------|
| • Lead Poisoning Case Management Report Form | Appendix L |
| • Resident Questionnaire for Investigation of Lead Poisoning | Appendix M |
| • Lead Poisoning Care Plan Template | Appendix N |
| • Consent for Release of Information | Appendix O |

5. **Provide Health Education**

Educating caregivers is an important part of comprehensive lead poisoning case management. Caregivers need to understand the implications of the child's blood lead level, and what they can do to create and maintain a lead-safe environment. Case

managers must ensure caregivers are not overwhelmed by the information provided by the case management team; therefore, education must be tailored to each family. Arrangements should be made for the education to be provided in the family's strongest language. In addition, families are most receptive to educational messages delivered with cultural sensitivity (see page 7). Repeated educational interventions may be necessary to ensure understanding.

A copy of the Lead Poisoning Family Health Education Checklist is included as **Appendix P**. The case manager must review each item on the checklist with the family, paying special attention to the specific risks and needs of the family. The checklist covers all of the topics discussed below. A list of health education materials in **Appendix G** has been developed for use by CHD case managers and their partners. Only the most appropriate materials should be reviewed and provided to the family. This ensures the family is not overwhelmed with information.

a. Educate the family on the sources and pathways of lead exposure.

Sources to be addressed should include:

- Lead-based paint and dust
- Lead-contaminated soil
- Home or folk remedies
- Imported ethnic or cultural products
- "Take-home" lead (lead carried home on the clothes or equipment of an individual whose hobby or occupation involves the use of lead)
- Consumer products
 1. jewelry
 2. vinyl mini-blinds
 3. imported candies or spices
 4. toys
 5. products recalled by the Consumer Product Safety Commission (CPSC) and distributed through Florida's Lead Alert Network

Provide information on the following pathways to lead exposure:

- Hand-to-mouth contact (ingestion)
- Inhalation
- Prenatal exposure

b. Educate the family on lead hazard reduction strategies.

Families can take an active role in reducing lead hazards in the home. CDC recommends the following methods for caregivers to use to reduce their child's lead exposure:

- Create barriers between living/play areas and lead sources
- Regularly wash children's hands and toys
- Regularly wet mop floors, and wet wipe window components
- Vacuum carpeted areas before wet mopping floors, and cover carpeted floors with clean throw rugs.
- Leave shoes at the door, and use entry way mats
- Prevent children from playing in soil; if possible, provide sandboxes

- Consider relocation if lead contamination is extensive and not easily remediable
- Use lead-safe work practices when doing renovation, repair or interim controls

NOTE: Improper work practices to remove lead-based paint can exacerbate lead hazards. Caregivers must be made aware of lead-safe work practices. They should also know that abatement activities must be conducted by professionals certified by the EPA.

Families should be educated about potential water hazards only if applicable. Recommendations for reducing exposure to lead in water include the following:

- Do not cook with or allow children to drink hot tap water
- Run the tap water cold for 1-2 minutes in the morning, and then fill a pitcher with the water for drinking, cooking and formula preparation
- Use bottled water if drinking water is contaminated

Families should be educated about “take-home” lead exposure if a parent, caregiver or household member works with lead on the job or as a hobby. A detailed list of high risk industries, occupations and hobbies that involve lead use is included in **Appendix B**. Prevention messages are as follows:

- Those working with lead on the job or as a hobby should wash/shower, and change work clothes and shoes before coming into the home
- Always wash work clothing separately from other clothing

c. Educate the family about managing the child’s nutrition.

The following recommendations provided by the CDC are appropriate for all children, including those with lead poisoning (also see page 23):

- Consume adequate amounts of calcium and iron found in cheese, milk and yogurt, etc.
- Consume at least two servings daily of foods high in vitamin C, such as fruits, vegetables and juices
- Eat in areas that pose a low risk for lead exposure; for example, eat at a table rather than on the floor
- Participate in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), if the family is eligible; potential WIC clients should contact their local WIC clinics to determine if they are eligible to participate in this service

d. Educate the family about the importance of recommended medical follow-up.

Some caregivers may not understand the importance of complying with recommended medical follow-up, including follow-up blood lead testing. Explain why medical follow-up is important, and encourage the families to do everything they can to ensure their child receives this care. Other social service agencies should be contacted (by the family, or by the case manager with the family’s written consent **Appendix O**) to support the family if the family has transportation barriers.



Tools for Case Managers

- Lead Poisoning: High Risk Industries, Occupations and Hobbies **Appendix B**
- List of Health Education and Outreach Materials **Appendix G**
- Lead Poisoning Family Health Education Checklist **Appendix P**
- Consent for Release of Information **Appendix O**



Resources for Case Managers

- Florida WIC Website
<http://www.doh.state.fl.us/family/WIC/>
Telephone: 1-800-342-3556

6. *Coordinate the Provision of Developmental Screenings, Assessments and Interventions (Screen for Developmental Delay)*

The adverse effects of lead poisoning on a child’s development and cognition are well established. For this reason, the CDC recommends that neurodevelopmental surveillance and referral for diagnostic screening, assessment or intervention be incorporated into the overall care plan (**Appendix N**) for children with confirmed elevated blood lead levels. The child’s health care provider is in the best position to conduct long term developmental surveillance; however, initial activities should be coordinated between the health care provider and case manager. *Only individuals trained to conduct developmental screenings should complete this activity.* Developmental surveillance by the health care provider should not cease after the case is closed.

- Refer the family to the local Children’s Medical Services (CMS) office.** CMS will accept referrals for children ages birth to 21 years with confirmed lead poisoning. CMS will provide care coordination if the referred child meets the clinical and financial eligibility requirements. **The DOH CMS will provide a team of specially-trained health care professionals to work with the family and child to deliver primary and specialty care services if the referred child meets CMS eligibility criteria.** In addition, children that fall under the care of CMS receive services through the Early Steps Program. Early Steps is a service administered by CMS in accordance with the Program for Infants and Toddlers with Disabilities (Part C of Individuals with Disabilities Education Act). Early Steps offers early intervention services for families with infants and toddlers (ages birth to 36 months) who have developmental delays or an established condition likely to result in a developmental delay. Sixteen contracted local CMS Early Step offices across the state coordinate with community agencies and other contracted providers for the delivery of needed support and services. If the child is 3 years to 21 years of age, the CMS primary care provider may order a developmental screen and/or assessment. It should be noted that families who accept services from CMS will need to accept CMS as their primary health care provider.

In some cases, families are not willing to change health care providers. In this instance, children should receive a developmental screening from their health care provider (see part b below). Infants and toddlers (ages birth to 3 years) who have developmental delays or an established condition likely to result in a

developmental delay and are not willing to change health care providers are still eligible for referral to Early Steps Programs.

b. Request that the child's health care provider complete a developmental screening.

The Lead Poisoning Prevention Program recommends developmental screening be completed by the health care provider when possible. The case manager is in a unique position to assist the health care provider due to the case manager's first-hand knowledge of risk factors identified during home visits and other contacts. Other risk factors (e.g., teen-age mother, poor parenting skills, inadequate cognitive or emotional stimulation, child abuse, poverty, genetic disorder, poor nutrition, and other medical issues) should be taken into account by the health care provider at the time of screening.

A case manager trained in developmental screenings may conduct this activity, and provide valuable information to the health care provider. The Lead Poisoning Prevention Program recommends using the Ages and Stages Screening Tool to conduct developmental screenings. If it is suspected that a child might be experiencing neurodevelopment problems based on the screening, arrange a thorough diagnostic (as opposed to screening) evaluation with the health care provider. In addition, if the child is under the age of 3 years old, case managers may refer these clients to the Early Steps Program.



Tools for Case Managers

- Lead Poisoning Care Plan Template

Appendix N



Resources for Case Managers

- Children's Medical Services (CMS)
<http://www.cms-kids.com/>
- Early Steps Program
<http://www.cms-kids.com/earlysteps>

7. Refer the Family to Developmental Programs and Community Resources

Families should be referred to other health, housing and social service programs when appropriate. Examples of community programs include the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Head Start, Salvation Army, Community Development Block Grant Program, Habitat for Humanity, Rebuilding Together, weatherization programs, community action agencies, community development corporations, etc. Families may contact these entities on their own. **Note:** The release of patient information to a referral entity should only be completed with written consent (**Appendix O**) from the family.

a. Coordinate the provision of a nutritional assessment.

Nutritional interventions may benefit a child affected by lead poisoning. Case managers should ensure the child's physician or CHD clinic performs the following activities.

1. Test at-risk children for anemia.

Children considered at-risk for anemia are those from low income, migrant or recently arrived refugee families, or those qualifying for WIC. It is recommended that case managers discuss iron treatment with the health care provider as indicated by the result of the anemia test. At-risk children should be tested based on the schedule below:

- Between ages 9 and 12 months
- 6 months after test
- Annually from ages 2 to 5 years

2. Refer the child to WIC if not already enrolled.

The WIC program will provide direct nutritional services if the referred child meets eligibility criteria. In-depth nutrition counseling requires a physician or health care provider referral. To make a referral, have the potential client call WIC at 1-800-342-3556.

3. Make nutritional recommendations.

The information collected through the previous two steps should be used to develop recommendations for the child and child's caregiver. Sample recommendations are provided below. These recommendations are for children 6 months of age and older.

- Advise caregivers to provide children with an adequate intake of iron-containing foods. The following recommendations should be provided:
 - Introduce pureed meats as soon as the child is developmentally ready.
 - Provide one serving of lean red meat per day to older children.
 - Provide iron supplements only under the supervision of a physician or nutritionist, and only when anemia or iron deficiency is documented.
- Advise caregivers to provide children with an adequate intake of vitamin C- containing foods.
 - Provide two servings of fruits per day.
 - Provide supplements only under the supervision of a physician or nutritionist.
- Encourage caregivers to provide children with an adequate intake of calcium (500 mg per day at 1-3 years of age; 800 mg per day at 4 - 8 years of age).
 - Provide two servings per day of dairy products or other calcium-rich foods.
 - Provide calcium supplements only under the supervision of a physician or nutritionist.
- Provide creative ways to help parents improve their child's nutrition. Examples are provided on the websites below, under Resources for Case Managers.

b. Refer to community housing resources.

CHDs should identify local business, contracting firms, foundations, community organizations or churches that can provide free or reduced cost lead identification and remediation services to families of lead poisoned children. CHDs are encouraged to maintain an up-to-date list of local community housing resources, and families should be directed to use these services. Additional information about specific housing resources is provided below. Please note that children who receive an environmental health investigation (see page 25) may receive additional information and referrals based on the findings of the investigation.

NOTE: Abatement of lead hazards through replacement, removal, enclosure or encapsulation of lead-contaminated surfaces **must be done by an EPA licensed lead abatement contractor.**

- **Connect the family to community resources for lead hazard reduction.** Provide the family with a list of social services and housing programs **Appendix Q**. If needed, offer the homeowner or landlord education and assistance in making contact with the various agencies.
- **Provide education about lead-safe work practices.** It is possible for families to address lead hazards on their own if they carefully follow lead-safe work practices. Extensive information about lead- safe work practices is included on HUD's website. The Don't Spread Lead Do-It-Yourself Training course materials are also provided by the National Center for Healthy Housing (NCHH). Links to these resources are provided below.
- **Follow-up with the family.** Contact the family to assess progress with minimizing lead hazards and creating a lead-safe home. Document the changes that have been made in the environment in the notes section in Merlin.



Tools for Case Managers

- Consent for Release of Information
- Sample Community Resources List

Appendix O
Appendix Q



Resources for Case Managers

- United States Department of Agriculture (USDA) <http://www.usda.gov/>
- MyPyramid.gov--*Steps to a Healthier You* <http://www.mypyramid.gov/index.html>
- Florida WIC Website <http://www.doh.state.fl.us/family/WIC/>
- HUD Lead-Safe Work Practices Field Guide <http://www.hud.gov/offices/lead/training/LBPguide.pdf>
- Don't Spread Lead Do-It-Yourself Training Course http://www.healthyhometraining.org/LSWP/Don't_Spread_Lead_DIY.htm

8. Ensure siblings and household contacts under six years of age receive a blood lead test.

The CHD case manager should encourage the family to have siblings and other household contacts less than six years of age tested for lead poisoning.

9. Conduct an Elevated Blood Lead Level Environmental Health Investigation (EBLL EHI)

The prompt and effective identification and control of lead sources should be the highest priority during case management. An **EBLL EHI** must be conducted by an EPA certified lead risk assessor for all children with confirmed blood lead levels of ≥ 15 $\mu\text{g}/\text{dL}$. In addition, the **EBLL EHI** should be considered when a child has a confirmed blood lead level ≥ 10 $\mu\text{g}/\text{dL}$, and has an additional blood lead test taken more than three months apart with the results equal to or higher than the initial test. Since a follow-up test is needed for a confirmed blood lead level < 15 $\mu\text{g}/\text{dL}$ and ≥ 10 $\mu\text{g}/\text{dL}$ and is within three months, a third test may be needed to determine eligibility for an EBLL EHI (Refer to Appendix A for additional guidance).

When conducting EBLL EHIs, the EPA certified lead risk assessors must follow ALL procedures covered in their training and abide by the HUD Guidelines Chapter 16 that can be found at <http://www.hud.gov/offices/lead/lbp/hudguidelines/>.

The primary purpose of the investigation is to identify a source or sources for the lead poisoned child so that the lead exposure can be reduced quickly. Therefore, investigations should be initiated as soon as possible after a case is identified. When coordinating multiple cases, priority should be given to children with the highest blood lead levels and to children less than two years of age.

Children with blood lead levels greater than 45 $\mu\text{g}/\text{dL}$ should be given special attention. Case managers should contact the child's health care provider immediately to determine whether the child is being treated at home or in the hospital. Children are particularly vulnerable to lead hazards during and following chelation therapy; therefore, it is critical for the case management team to arrange an environmental health investigation of the home immediately. An environmental health investigation can help identify or establish the need for a safe environment for the child to reside during this time.

Once a source(s) is identified, the CHD should provide the caregiver and homeowner with guidance on eliminating the hazard. This may require interim control or abatement recommendations. Currently, Florida does not have expressed legal authority to require property owners to eliminate lead hazards in homes where children with lead poisoning reside.

The following activities should be undertaken in order to complete the EBLL EHI.

a. Review the risk and environmental history of the child.

The first step in conducting an EBLL EHI is obtaining information on the environmental history and risk of the child. The EPA certified lead risk assessor must obtain the information from the case management report form (**Appendix L**). When an EBLL EHI is needed, it is recommended that the EPA certified lead risk assessor complete the Resident Questionnaire in **Appendix M**.

b. Develop a plan for the investigation.

The EPA certified lead risk assessor should use the information collected from the Lead Poisoning Case Management Report Form (**Appendix L**) and the Resident Questionnaire (**Appendix M**) to tailor a plan for conducting the EBLL EHI prior to arrival on site. Using this information to develop an EBLL EHI plan

ahead of time can ensure that potential sources of lead are not overlooked during the investigation. The plan should include the types of samples that will be taken, and how and where they will be taken. Be aware that even if a source becomes immediately apparent during the collection of this information, it may not be the true or the only source of lead exposure.

c. Explain the EHI process to the caregiver.

Prior to arriving on site the case manager and/or risk assessor should contact the caregiver by phone, and thoroughly discuss the process and purpose of the EBLLEHI. This is also an opportunity to repeat some of the important educational messages about lead hazards and lead poisoning prevention.

d. Arrive on site, and conduct the EBLLEHI.

Upon arrival, take the time to review the process again with the caregiver. Once the caregiver is informed, the following steps should be followed.

1. Talk to the family to gain an understanding of the use patterns of the home. Complete the Resident Questionnaire (Appendix M).

Verify which doors, walkways, floors, rooms or windows are commonly used. Determine where meals are regularly eaten, and where the child spends most of his or her time both inside and outside of the home. This effort with the visual assessment will help the EPA certified lead risk assessor to refine the sampling plan once on site.

2. Visually inspect the residential environment.

A visual inspection can quickly identify areas where deteriorating paint may be contributing to lead exposure, and should include windows, porches, bare soil and common areas in multi-family dwellings as well as any other locations where the child spends time.

3. Measure the lead in environmental media, and complete the investigation.

As discussed above, selection of areas for testing or sampling should be guided by the visual inspection and the findings of the Resident Questionnaire (Appendix M). The EPA certified lead risk assessor must follow sampling techniques defined in the HUD Guidelines. A link to this resource is provided on page 30 under "Resources for Case Managers."

Testing should include the following, at minimum:

- house dust (dust sample);
- paints, varnish and/or similar household surface coatings that are not intact or that are located on surfaces subject to friction, such as doors or windows (XRF machine);
- bare soil in high foot traffic areas and/or play areas (soil sample);
- mini-blinds (dust sample); and
- other potential sources of lead exposure as appropriate, including home or folk remedies, pottery or dishware, cosmetics, "take home" exposure related to caregiver

hobbies/occupation, home-based work activities involving lead (home renovation or repair, casting bullets or fishing sinkers, car repair, stained glass making, etc.), water, and any other potential source of lead exposure. If you suspect that food items and/or spices may be the source of lead exposure, please contact the Florida Department of Agriculture and Consumer Services (DACS) food lab for information pertaining to lab analysis. DACS contact information is in the resources for case managers section on page 30.

e. Report EBLL EHI findings in the Merlin system.

The findings of the EBLL EHI must be reported in the Lead Poisoning Case Management Report Form in the Merlin system.

f. Write the EHI report.

EPA certified lead risk assessors must document the findings of the EBLL EHI, and provide recommendations for reducing identified hazards in a written report (**Appendix R**). This report is separate and different from the Lead Poisoning Case Management Report Form (**Appendix L**). Recommendations should be written in a way that is easy for the caregiver, homeowner/landlord and health care provider to understand. The report should not reference the child's name or blood lead level as personal health information is protected under HIPAA.

The written report must:

- provide the address where the investigation was completed
- provide information on who conducted the investigation and their certification information
- detail all of the hazards identified in the course of the investigation
- include detailed, but easy to understand, recommendations for addressing each hazard
- identify hazardous areas that should be monitored for deterioration in the future
- provide general information about controlling lead-based paint and other lead hazards in the home

A template Lead Risk Assessment Report is included as **Appendix R**.

g. Provide and discuss the EHI report with the caregiver, property owner and health care provider.

1. Caregiver

A copy of the report must be provided to the caregiver. It is best if the EPA certified lead risk assessor takes the time to go through the report with the family to ensure the caregiver understands the findings of the investigation. The risk assessor and case manager should also work to connect the family to resources or assistance in remediating existing hazards (**Appendix Q**). If the resident is also the owner, inform them of their responsibilities under the EPA Lead Disclosure Rule.

2. Health Care Provider

Provide a copy of the report and discuss the findings with the child's health care provider. Inform the health care provider that they may maintain the report in the patient's medical file.

3. Property Owner / Landlord

Discuss the findings and provide a copy of the EHI report to the property owner or landlord. The report **must not** contain any personal identifying health information due to HIPPA restrictions. Personal information can only be provided if the family formally releases the information to the landlord (**Appendix O**).

The case manager or EPA certified lead risk assessor must inform the property owner or landlord of their responsibility to comply with the EPA Lead Disclosure Rule. This federal rule requires property owners to disclose the report at the time of lease or sale. This requirement is explained in the cover letter of the sample report in **Appendix R**. Additional information about disclosure can be found on the EPA website at <http://www.epa.gov/lead/pubs/leadbase.htm>.

h. For public housing, the case managers should report suspected violations of the HUD/EPA Lead Disclosure Rule to the regional HUD office or the Region IV EPA office.

During the EBLI EHI, the EPA certified lead risk assessor or case manager may learn that a tenant was unaware of the potential presence of lead-based paint hazards in their pre-1978 property. This may be an indication of a prior violation of the Lead Disclosure Rule (Section 1018 of the Residential Lead-Based Paint Hazard Reduction Act). The following actions are recommended.

If a family who is renting a property is concerned about their rights, case managers should not provide legal advice. They can, however, refer families to local resources for legal assistance.

- In cases where there is non-compliance with the Lead Disclosure Law, the family may contact EPA to report a potential violation.

EPA contact information

Phone: 1-800-241-1754 (Region 4)

Website: www.epa.gov

- If the dwelling is a city owned or subsidized housing property (e.g., Section 8), the case manager should report the potential violation to the regional HUD office serving the jurisdiction where the property is located. These individuals can conduct follow up within their rules and regulations that may result in hazards being corrected. Contact information is provided below.

Regional HUD Offices and Contact Information

HUD Miami Office

Brickell Plaza Federal Building
909 SE First Avenue, Room 500
Miami, FL 33131-3028

Phone: (305) 536-4456

Fax: (305) 536-5765

TTY: (305) 536-4743

Jurisdiction (CHDs served): The following 10 counties in South Florida: Broward, Charlotte, Collier, Dade, Glades, Hendry, Lee, Martin, Monroe, and Palm Beach.

HUD Tampa Office

Timberlake Federal Building
500 E. Zack Street, Suite 402
Tampa, FL 33602-2945

Phone: (813) 228-2026

Fax: (813) 228-2431

TTY: (813) 228-2115

Jurisdiction (CHDs served): The following 12 counties in West Central Florida: Citrus, De Soto, Hardee, Hernando, Highlands, Hillsborough, Manatee, Pasco, Pinellas, Polk, Sarasota, and Sumter.

HUD Jacksonville Office

Charles E. Bennett Federal Building
400 W. Bay Street, Suite 1015
Jacksonville, FL 32202

Phone: (904) 232-2627

Fax: (904) 232-3759

Jurisdiction (CHDs served): The following 36 counties in North Florida: Alachua, Baker, Bay, Bradford, Calhoun, Columbia, Clay, Dixie, Duval, Escambia, Flagler, Franklin, Gadsden, Gilchrist, Gulf, Hamilton, Holmes, Jackson, Jefferson, Lafayette, Leon, Levy, Liberty, Madison, Marion, Nassau, Okaloosa, Putnam, St. Johns, Santa Rosa, Suwannee, Taylor, Union, Wakulla, Walton, and Washington.

HUD Orlando Office

3751 Maguire Blvd., Suite 270
Orlando, FL 32803

Phone: (407) 648-6441

Fax: (407) 648-6310

Jurisdiction (CHDs served): The following 9 counties in East Central Florida: Brevard, Indian River, Lake, Okeechobee, Orange, Osceola, St. Lucie, Seminole, and Volusia.

- i. **When feasible, offer primary prevention visual assessment and health education to families with young children living in adjacent properties or connected apartments.**

When possible, take note of other children near the home of a child with an elevated blood lead level. It is best practice to provide a primary prevention visual assessment and health education to assist nearby families in preventing childhood lead exposure. Be sure to maintain the confidentiality of the family with the lead poisoned children, unless you have written consent. Parents of lead poisoned children may be encouraged to educate their neighbors about lead poisoning prevention activities (e.g., distribute flyers).

j. Follow-up with the family to determine if recommendations have been followed.

Follow-up must be conducted with the family and/or home owner to determine if recommendations in the report have been followed. This is also an opportunity to determine if the family is in need of additional support in order to complete the activities defined in the recommendations section of the report (see section 7, page 22).



Tools for Case Managers

- Lead Poisoning Case Management Report Form
- Resident Questionnaire for Investigation of Lead Poisoning
- Consent for Release of Information
- Sample EBLL EHI Report

Appendix L
Appendix M
Appendix O
Appendix R



Resources for Case Managers

- EPA Lead Disclosure Information
<http://www.epa.gov/lead/pubs/leadbase.htm>
- HUD Guidelines
<http://www.hud.gov/offices/lead/lbp/hudguidelines/>
- HUD Visual Lead Assessment Training
<http://www.fhasecure.gov/offices/lead/training/visualassessment/h00101.htm>
- Information on the Florida landlord-tenant law <http://www.doacs.state.fl.us/>
- Florida Department of Agriculture and Consumer Services (DACs),
Division of Food Safety, Bureau of Food Laboratories
3125 Conner Boulevard, Suite D
Tallahassee, Florida 32399-1650
Telephone: 850-245-5595
Website: <http://www.doacs.state.fl.us/fs/contact.html>

10. Discuss Medical Care and Treatment Options with the Health Care Provider

The role of the primary health care provider is tremendously important, especially when dealing with children in class three (**confirmed BLL test results of 20-44 µg/dL**) or above (see page 30). It is the role of the lead poisoning case manager to assure the health care provider is aware of their responsibilities. If the physician is unfamiliar with treating lead poisoning, recommend the physician contact the Pediatric Environmental Health Specialist Unit at Emory University. Contact information is below under the “Resources for Case Managers” icon.

The following activities are required of the physician/health care provider:

a. Class 3 and above (confirmed BLL test results of 20-44 µg/dL)

1. *Provider: Conduct a medical exam--*Conduct a physician examination. Assess for anemia, and recommend multi-vitamins with iron or iron treatment as indicated.

b. Class 4 and above (confirmed BLL test results of 45-69 µg/dL)

1. *Provider: Provide a complete neurological exam.*
2. *Provider: Consider chelation treatment--*Treatment options, such as chelation therapy (e.g., Succimer), should be considered when a child has a confirmed

blood lead level greater than 45 µg/dL. Intravenous inpatient chelation may be necessary to stimulate release of lead from the bone. Health care providers should conduct a repeat venous blood lead test before initiating chelation therapy. Chelation therapy should not be postponed while awaiting results of a repeat test when the venous blood lead level is ≥ 70 µg/dL or clinical symptoms are present.

Post-Chelation Guidelines

- Repeat venous lead levels in 1-3 weeks after hospital discharge.
- Repeat venous lead levels every two weeks for 6-8 weeks.
- Monitor lead levels closely for 4-6 months after chelation. If the lead level rebounds, meaning it increases to pre-treatment levels, consider repeat chelation therapy. A minimum of two-week intervals is needed between chelation courses.



Resources for Case Managers

- **Pediatric Environmental Health Specialty Unit**
Emory University Department of Pediatrics
49 Jesse Hill Dr, SE office #274
Atlanta, GA 30303
Telephone: (404) 727-9428 Fax: (770) 396-1011
Toll-Free: (877) 33 PEHSU or (877) 337-3478
E-mail: pehsu@oz.ped.emory.edu
Website: <http://www.sph.emory.edu/PEHSU/>

11. Case Closure Guidelines

The case manager must close the case when specific requirements (described below) have been met. Upon case closure, the case should be referred back to the primary health care provider for ongoing monitoring. The case manager should provide a summary report to the primary health care provider identifying case management goals; and describing the intervention services received to achieve these goals, the current status of the goals, any ongoing care concerns, and reasons for case closure. There are three types of case closure criteria (described below): medical, client refusal of services, and unable to locate.

- a. Medical:** Two confirmed blood lead levels below 10 µg/dL for six months, completion of all elements of the Lead Poisoning Care Plan (**Appendix N**), and an evaluation of the efficacy of these elements. The case manager must consider the control or remediation of lead hazards, and the parent/guardian's ability to prevent future exposure. When these conditions are met, the case qualifies for medical closure. Note that it often takes an extended period of time to complete all of the elements of the Lead Poisoning Care Plan. In some cases, it may not be possible to decrease the child's blood lead level below 10 µg/dL; however, every effort should be made to prevent future exposure to lead hazards.
- b. Client refusal of services:** When the parent/guardian refuses case management services offered by the case manager. When this occurs, the case manager should refer the client back to the primary health care provider for continuing medical care.

- c. Unable to locate:** There are circumstances where families of lead poisoned children cannot be located. In order to ensure cases are not closed prematurely under this criteria, the following activities must take place before case closure:
1. Two home visit attempts
 2. Two phone calls (AM and PM)
 3. One letter to notify parents/guardian that the CHD has made efforts to contact them. In addition, inform the parents/guardian that they may contact the CHD for assistance.
 4. One (certified) letter to notify the parents/guardian that the case is being closed due to lost to follow-up.



Tools for Case Managers

- Sample Lead Poisoning Care Plan

Appendix N

VII. QUALITY ASSURANCE AND EVALUATION OF LEAD POISONING CASE MANAGEMENT

The DOH Division of Environmental Health and the CHDs have a role in monitoring and evaluating the timeliness, completeness and effectiveness of lead poisoning case management activities. The Florida Childhood Lead Poisoning Prevention Program’s Screening and Case Management Coordinator will review each case in Merlin to assess timeliness, completeness and effectiveness of case management interventions at least quarterly. CHDs will be notified regarding incomplete information on the lead poisoning case management report form. The CHD is responsible for coordinating services that have not been provided, and completing incomplete data fields in a timely manner.

The following chart identifies the indicators that will be used to assess the timeliness and appropriateness of case management activities statewide.

Goal	Standard/ Objective	Indicator	Data Sources	Frequency of Collection
Provide timely case management.	80% of lead poisoning cases will receive complete case management services within the time frames identified in the case management guidelines.	% of cases receiving complete case management services within the time frames identified in the case management guidelines.	Merlin/CLPPP	Quarterly Reviews/ Annual Reports
Provide appropriate case management services.	80% of lead poisoning cases will receive appropriate case management services as identified in the case management guidelines.	% of cases receiving appropriate case management services according to the confirmed test result.	Merlin/CLPPP	Quarterly Reviews/ Annual Reports

VIII. PROTECTIVE POLICIES

Given the importance of removing a child from the source of lead exposure, especially in the case of lead-based paint hazards, jurisdictions may consider supporting and contributing to the establishment of protective policies. Policies at the local and state levels may require the elimination or control of lead hazards in housing units occupied by children with elevated blood lead levels. Establishing protective regulations are part of Florida’s Strategic Plan for the Elimination of Childhood Lead Poisoning, and are being considered by Florida’s Partnership for Lead Poisoning Prevention and Healthy Homes. Additional information on policy development can be found on the CDC, HUD and the National Center for Healthy Housing’s websites listed below.



Resources for Case Managers and Partners

- CDC Lead Poisoning Prevention Branch
<http://www.cdc.gov/nceh/lead/>
- HUD Office of Healthy Homes and Lead Hazard Control
<http://www.hud.gov/offices/lead/>
- National Center for Healthy Housing’s Healthy Homes Policy Database
<http://www.healthyhomestraining.org/codes/state.htm>

IX. REFERENCES

Centers for Disease Control and Prevention. Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta: CDC, March 2002.

http://www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm

Centers for Disease Control and Prevention. Preventing Lead Poisoning in Young Children. Atlanta: CDC, October 1991.

Centers for Disease Control and Prevention. Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials. Atlanta: CDC, 1997.

<http://www.cdc.gov/nceh/lead/guide/guide97.htm>

Centers for Disease Control and Prevention. Interpreting and Managing Blood Lead Levels <10 µg/dL in Children and Reducing Childhood Exposures to Lead: Recommendations of CDC's Advisory Committee on Childhood Lead Poisoning Prevention. MMWR 2007;56:(No. RR-8).

Centers for Disease Control and Prevention. Guidelines for Collecting and Handling Blood Lead Samples, 2004 (CD-ROM).

<http://video.cdc.gov/ramgen/nceh/lead/bloodleadsamples.avi>

Florida Childhood Lead Poisoning Prevention Program

<http://www.myfloridaEH/medicine/lead/index.html>

Florida Chapter of the American Academy of Pediatrics

<http://www.medicalhomeinfo.org/states/state/florida.html>

Florida Department of Health, *Childhood Lead Poisoning Screening and Case Management Guide*

<http://www.doh.state.fl.us/environment/medicine/lead/education.htm>

United States Centers for Disease Control and Prevention

<http://www.cdc.gov/lead/>

United States Department of Health and Human Services

<http://www.hhs.gov/>

United States Department of Housing and Urban Development

<http://www.hud.gov/>

X. APPENDICES

Appendix A



Childhood Lead Poisoning Case Management Guidelines

Case management of children with elevated blood lead levels involves coordinating, providing and overseeing services required to reduce blood lead levels to below 10 µg/dL. This quick reference is for case management coordinators at county health departments (CHD) and the team of individuals (physicians, nurses, nutritionists, environmental inspectors, and others) responsible for providing follow-up services and care for lead poisoned children.

Priority should be placed on responding to children with the highest blood lead level and to children less than two years of age with any elevated blood lead level. Lead levels in children less than two years of age are more likely to increase and their growing bodies are more sensitive to the effects of lead.

Confirmed Test Results	Follow-up Testing Schedule	Case Management Guidelines	Case Mgt Time Frame
Class 1 10-14 µg/dL	Within 3 months	<p>Notify the caregiver: Contact by phone, and send a notification letter to the family / caregiver.</p> <p>Report the case: Physicians report case to CHD. CHDs report case in Merlin (the state system for reportable diseases), and enter follow-up and case tracking information on lead data screens.</p> <p>Assess family needs and obtain an environmental history: Interview the family by phone or at residence to assess the child’s environmental risk factors, eating habits, behaviors, and health, housing and social service needs.</p> <p>Develop a care plan: Collaborate with the family, physicians and other providers to develop an appropriate care plan based on the needs assessment. Include all necessary referrals in the care plan.</p> <p>Provide health education: Educate the family about sources of lead, exposure pathways, and methods of prevention including proper nutrition and lead safe work practices.</p> <p>Assess for developmental delay.</p> <p>Refer the family to developmental programs and community resources: Make referrals to the local Children’s Medical Services office and to developmental programs, health, and housing and/or social services when appropriate.</p> <p>Test siblings and household contacts under six years of age for lead poisoning.</p> <p>Consider an Environmental Health Investigation: when a child has a confirmed blood lead level $\geq 10\mu\text{g/dL}$ <i>AND</i> The child has a blood lead test taken more than three months from the date of confirmation with a result greater than or equal to the test result at confirmation. Include primary/secondary residence and/or child care facility as part of investigation. Report findings in Merlin.</p>	Within 20 Business Days
Class 2 15-19 µg/dL	Within 2 Months	<p>Follow Class 1 Guidelines AND</p> <p>Conduct an Environmental Health Investigation: Conduct an investigation when a child has a confirmed blood lead level in the range of 15-19 µg/dL followed by a blood lead test taken more than three months apart with a result in the same range. Include primary/secondary residence and/or child care facility as part of investigation. Report findings in Merlin.</p>	Within 10 Business Days
Class 3 20-44 µg/dL	Within 1 Month	<p>Follow Class 1 and 2 Guidelines AND</p> <p>Physician: Conduct medical exam: Conduct a physical examination. Assess for anemia and recommend multi-vitamins with iron or iron treatment as indicated.</p> <p>Conduct an Environmental Health Investigation: Include primary/secondary residence and/or child care facility as part of investigation. Report findings in Merlin.</p>	Within 5 Business Days
Class 4 45-69 µg/dL	Urgent Treatment Repeat within 48 hours	<p>Follow Class 1, 2, and 3 Guidelines AND</p> <p>Physician: Provide a complete neurological exam.</p> <p>Physician: Consider chelation treatment. Consider treatment options such as oral chelation therapy (succimer). Intravenous inpatient treatment chelation may be necessary to stimulate release of lead from bone. See post-chelation guidelines below.</p>	Within 2 Business Days
Class 5 ≥ 70 µg/dL High Priority	Medical Emergency! Admit to Hospital	<p>Follow Class 1, 2, and 3 Guidelines AND</p> <p>Physician: Hospitalize and initiate chelation therapy. Chelation therapy should not be postponed while awaiting results of a repeat test for Class V.</p> <p>Post-Chelation Guidelines: Repeat venous lead test in 1-3 weeks after hospital discharge. Repeat venous lead test every two weeks for 6-8 weeks. Monitor lead level closely for 4-6 months after chelation. If the lead level “rebounds” to pre-treatment levels, consider repeat chelation therapy. Minimum of two-week intervals is needed between chelation courses.</p>	Within 2 Business Days

These guidelines are from the FL DOH Childhood Lead Poisoning Screening and Case Management Guide. For more information please call the FL DOH Childhood Lead Poisoning Prevention Program (850) 245-4299 or visit our web site, <http://www.doh.state.fl.us/environment/medicine/Lead/index.html> Updated January 2008

Appendix B

Lead Poisoning: High Risk Industries, Occupations & Hobbies

Abrasive blasters	Carpenters / joiners	Plumbers/pipe fitters
Acoustic and heating insulation installers	Carpet trades	Police officers
Aircraft repair	Chemical preparation Concrete trades	Pool installers
Air conditioning / heating fitters	Construction & renovation workers	Printing
Aerial installers	Corrosion trades	Recycling facility
Alarm installers	Demolition workers Electricians	Roofing
Ammunition manufacture Architects	Engineers	Rubber manufacture
Asbestos removers	Excavators	Scrap metal recovery
Boat builder or painter	Firing range staff	Sign painting
Brass or copper foundry Bricklayers	Glass blowers and manufacture	Stone masons
Bridge, tunnel, and tower workers	Glaziers	Tilers
Builders	Industrial machine painting or repair	Ventilation maintenance/repair
Building inspectors	Landscapers	Wall paper contractors
Cabinet makers	Lead smelter, production, refining	Painters
Cable layers	Miners	Plasterers
Battery recycling or manufacture	Waterproofing specialists	Plastics manufacture
Welders / metal workers	Paint, pigment or shellac manufacture	Pottery/Ceramics
Cable repair (telephone and other lead shielded cables)	Automotive body or radiator repair and maintenance	Stained Glass Making
Furniture Refinishing	Jewelry Making	Hunting/Fishing
Firearms/Target Shooting		

Appendix C

Lead Poisoning: Risks of Folk/Home Remedies & Cultural Practices

Region of origin	Name	Appearance	Use	Miscellaneous
Mexico	Azarcon (rueda, Coral, maria luisa, Alarcon, Liga, luiga)	Red/orange powder	Empacho (vomiting, colic), apathy, lethargy.	95% lead.
Mexico	Greta	Yellow powder	See above.	97% lead.
Mexico, and Central America	Albayalde or albayaidle	White powder	See above.	93% lead.
Dominican Republic	Litargirio	Yellow or peach-colored powder	Deodorant, foot fungicide, burn treatment	79 % lead. Sold in 2-inch by 3-inch clear packets.
Laos (Hmong)	Pay-loo-ah (also known as pejuam or PeLua)	Red powder	Given for rash or fever	90% lead.
Asia/India	Ghasard	Brown powder	Given as an aid to digestion	May be given as a daily tonic. 2% lead.
Asia/India	Bali goli	Round, flat, black bean	Given to treat stomachache	Dissolved in "gripe" water.
Asia/India	Kandu	Red powder	Given to treat stomachache	
Asia, India	Deshi Dewa		Fertility pill	12% lead.
Africa, Asia, India, Pakistan, Middle East	Kohl (Alkohol, Tiro Surma, Saott)	Black powder	Cosmetic, astringent for eye injuries, skin infections	Teething powder. Used on umbilical stump of newborn child.
Asia	Chuífong tokuwan		?	
China	Hai Ge Fen (also known as Sai Mei An).	Clamshell powder.	Given to treat stomachache, ulcers or mouth sores.	Brewed in tea. ("Used to cool inner heat" that causes illnesses).
China	Ju Hua (formerly known as Xyoo Fa).	Tea, solution, pills.	Given to treat headache, fever, dizziness, & stomachache.	Available in different forms.
China	Litharge (also known as Mi Tuo Seng)	Green/red powder.	Available in different forms.	Contains lead oxide.
China	Cordyceps		Herbal medicine treatment for hypertension, diabetes, bleeding.	
China	Ba Bow Sen		Hyperactivity & nightmares in children.	
India/Pakistan	Kushta		Diseases of the hart, brain, liver, stomach.	Also used as an aphrodisiacs & tonic.
India, Pakistan, Sri Lanka, Burma, Bhutan, Mongolia, Tibet	Unknown (Ayurvedic)		Metal-mineral tonic, slows development.	1.35-72,990 ug/g per capsule.
Middle East	Anzroot		Gastroenterities.	
Middle East	Cebagin		Teething power	51% lead.
Middle East	Henna		Hair and skin dye.	
Oman, Saudi Arabia, India	Bint al dahab, bint or bent dahab		Diarrhea, colic, constipation, general neonatal use.	98% lead.
Saudi Arabia	Bokhoor (and noqd)		Wood and lead sulfide burned on charcoal to product pleasant fumes and calm infants	
Saudi Arabia	Al Murrah		Colic, stomach aches, diarrhea.	
Saudi Arabia	Farouk & Santrinj		Teething powder.	

(Compiled by the NSW Lead Reference Centre, 1997 from "Lead is a Silent Hazard", 1994, pp 154-156 and assorted articles in the medical literature)



LEAD POISONING RISK ASSESSMENT

INSTRUCTIONS: Parents/caretakers of children less than six years of age who are not part of the targeted populations listed in the “Childhood Lead Poisoning Screening and Case Management Guide” should complete this questionnaire at each annual check-up. A “yes” or “unknown” response to any question indicates the child is at risk for lead poisoning, and should receive a blood lead test and appropriate follow-up. See the technical assistance guidelines (“Child 4”) for the “Risk Assessment, Screening and Follow-up of Children for Elevated Blood Lead Levels.”

Place date at the top of the column. Indicate response by “Y” for yes, “N” for no, or “U” for unknown in the appropriate blocks. Sign name and title at the bottom of appropriate column.

	<i>Section 1.01</i>	<i>DATE</i>					
1. Does your child live in or regularly visit (once a week or more) any house or building built before 1978?							
2. Does your child live in or regularly visit any house or building that has recently undergone renovation?							
3. Does your child frequently come into contact with an adult whose job or hobby involves exposure to lead? Examples: <i>Occupations:</i> building renovation, battery factory or recycling, auto or radiator repair, highway bridge sandblasting or painting, welding metal structures, or wire cable cutting <i>Hobbies:</i> refinishing furniture; home renovation; casting bullets; auto battery or radiator repair; making stained glass, ceramics, toy soldiers, dive weights, or fishing weights							
4. Does your child have contact with cosmetics, kohl, candies, spices, jewelry, ceramic dishware and/or home (or folk) remedies not made in the United States; and/or leaded crystal, imported ceramic, or pewter dishes?							
5. Does your child play in loose soil, near a busy road or near any industrial sites such as a battery recycling plant, junk yard or lead smelter?							
6. Have you ever seen your child eat dirt or put his/her mouth on painted surfaces, paint chips, toys, jewelry or vinyl mini blinds?							
7. Has your child recently visited or lived in another country for an extended period of time?							
			Signature/Title	Signature/Title	Signature/Title	Signature/Title	Signature/Title

DH 4126, 2/09

Name:
ID No:
Date of Birth:



EVALUACIÓN DE RIESGO DE ENVENENAMIENTO POR PLOMO

INSTRUCCIONES: Los padres/cuidadores de niños menores de seis años de edad que no sean parte de las poblaciones objetivo listadas en la página 6 de la Guía “Guía para la detección del envenenamiento infantil por plomo y para la administración de casos”, deben completar este cuestionario en cada chequeo anual. Una respuesta de “Sí” o “No Sé” a cualquiera de las preguntas indica que el niño(a) está en riesgo de envenenamiento por plomo, y debe hacerse una prueba de plomo de sangre y el seguimiento apropiado.

Consulte las pautas de asistencia técnica (“Niño 4”) para la “Evaluación de riesgo, detección y seguimiento de niños con niveles elevados de plomo en la sangre”.

Ponga la fecha en la parte superior de la columna. Indique la respuesta con una “S” para Sí, una “N” para “No” y “NS” para “No sé” en los recuadros apropiados. Firme y escriba su cargo al final de la columna correspondiente.

	FECHA					
1. ¿Vive o visita regularmente (una vez a la semana o más) su hijo(a) cualquier casa o edificio construido antes de 1978?						
2. ¿Vive o visita regularmente su hijo(a) una casa o edificio que se haya renovado recientemente?						
3. ¿Tiene su hijo(a) contacto frecuente con un adulto cuyo trabajo o pasatiempo lo exponga al plomo? Ejemplos: <i>Ocupaciones:</i> renovaciones de edificios, fabricación o reciclaje de baterías, reparaciones de radiadores o autos, pulir con chorro de arena o pintar puentes de autopistas, soldadura de metales, o cortar cables de alambre. <i>Pasatiempos:</i> acabado de muebles, renovaciones de hogar, soldadura de balas, reparaciones de batería o radiador de carro, hacer vidrios de color, cerámicas, soldados de juguete, pesas para buceo, o pesas para red de pesca.						
4. ¿Ha tenido su hijo(a) contacto con cosméticos, <i>kohl</i> , dulces, especias, joyas, platos de cerámica o remedios caseros (o tradicionales) que no hayan sido hechos en los Estados Unidos; y/o cristales emplomados, cerámica importada, o platos de peltre?						
5. ¿Juega su hijo(a) en tierra suelta, cerca de una carretera de mucho tránsito, o cerca de zonas industriales como plantas de reciclaje de baterías, chatarrería, o hornos de fundición de plomo?						
6. ¿Ha visto alguna vez a su hijo comer tierra o poner la boca en superficies pintadas, pedazos de pintura, juguetes, joyas, o minipersianas de vinilo?						
7. Ha visitado recientemente o vivido su hijo(a) en otro país por un período largo de tiempo?						
		Cargo/Título	Cargo/Título	Cargo/Título	Cargo/Título	Cargo/Título

Nombre:
N.º de ID:



Childhood Lead Poisoning Case Management Guidelines
 ~SAMPLE~
CHD Case Management Activity Checklist

Case managers may use this checklist as a guide to ensure appropriate follow up is provided.

ACTIVITY	DATE COMPLETED
Contact the Physician to discuss their role <input type="checkbox"/> Via phone <input type="checkbox"/> Via letter	
Notify Parents/guardians of Blood Lead Level <input type="checkbox"/> Via phone <input type="checkbox"/> Via letter	
Obtain Environmental History <input type="checkbox"/> Via phone <input type="checkbox"/> Via home visit	
Develop a Written Care Plan <input type="checkbox"/> Provide the care plan to the parent/guardian <input type="checkbox"/> Provide the care plan to the physician	
Provide Health Education on Topics Listed on the Family Health Education Checklist <input type="checkbox"/> Via phone <input type="checkbox"/> Via home visit <input type="checkbox"/> Via Mail	
Provide Nutritional Guidance <input type="checkbox"/> Via phone <input type="checkbox"/> Via home visit <input type="checkbox"/> Via Mail	
Developmental Delay Assessment	
Refer to WIC	
Refer to CMS	
Report into Merlin	
Provide Environmental Health Investigation (if applicable)	
Follow-up blood lead test 1 Target Date: _____	
Follow-up blood lead test 2 Target Date: _____	
Follow-up blood lead test 3 Target Date: _____	
Case Closed	



Childhood Lead Poisoning Case Management Guidelines List of Outreach & Educational Materials

A list of easily accessible education materials is provided below. Use this list to identify the materials most appropriate to the family of a lead poisoned child. At minimum, case managers should provide the two brochures published by the Department. Note: * *also available in Spanish* ** *also available in Spanish and Creole*

Florida Department of Health

To request the following materials, please contact the Florida Childhood Lead Poisoning Prevention Program by phone at (850) 245-4299 or visit the CLPPP website at <http://www.doh.state.fl.us/environment/medicine/lead/index.html>

- Required: Let's Be Lead Free: A Guide To Nutrition And Lead Poisoning**
- Required: Keeping Your Children Safe From Lead Poisoning: A Handbook for Parents**
- Lead: The Silent Threat*
- Lead Free at Work and At Home: A guide for preventing exposure at work and at home.
- Step-by-Step Hand Washing - Poster*
- Childhood Lead Poisoning Screening Guideline Maps: Show's high-risk areas with higher percentages of pre-1950 or 1970 housing

Environmental Protection Agency

To obtain copies of the following materials, please visit the EPA website <http://www.epa.gov/lead/pubs/leadpbed.htm> or call the National Lead Information Center at 1(800) 424-LEAD.

- Runs Better Unleaded - Poster*
- Give Your Child the Chance of a Lifetime, Keep Your Child Lead-Safe*
- Fight Lead Poisoning with a Healthy Diet*
- Lead in Your Home: A Parent's Reference Guide*
- Protect Your Family from Lead in Your Home*
- Reducing Lead Hazards When Remodeling Your Home*
- Testing Your Home for Lead in Paint, Dust, and Soil*
- Lead Poisoning and Your Children - Poster*

U.S. Department of Housing and Urban Development

To obtain the following materials, please visit the HUD website at <http://www.hud.gov/offices/lead/outreach/communityoutreach.cfm>

- Lead Screening and Recommended Immunization Schedule
- Coping with Your Child's Diagnosis.
- Lead—Your Safe Home
- Lead Paint Can Poison: Protect Your Family When You Repaint or Remodel
- Lead Paint Can Poison: Is Your Family at Risk?
- Caution: Lead Paint Handle With Care
- Lead Paint Can Poison: Learn the Facts
- Is Your Home a Healthy Home?
- Contribuyo a Tener un Hogar Sano – *Spanish only*
- Fight Lead Poisoning with a Healthy Diet
- How to Check for Lead Hazards in Your Home
- Lead Poisoning and Your Children
- Reducing Lead Hazards When Remodeling Your Home*

Appendix H



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

~Sample~
Family Notification Letter for an Elevated Blood Lead Level

Date

[Address]
[City, State, Zip Code]

Re: **[Child's Name]**

Dear: [Caregiver name]

Our office has been notified that your child, **[name of child]**, has an elevated blood lead level of ____ μ g/dL. According to the Centers for Disease Control and Prevention (CDC) and the Florida Department of Health blood lead levels equal to or above 10 μ g/dL is lead poisoning.

There are services available to you/your child due to the elevated lead level. Please contact me, [name of case manager], at [county] County Health Department to discuss this matter.

- Telephone number: _____
- Email address: _____
- Fax number: _____

INSTRUCTIONS FOR PARENTS:

- Make sure your child eats regular meals, including foods such as cereal, greens, cheese, and milk as they are high in calcium and iron.
- **BE ALERT AND KEEP CHILDREN AWAY FROM PEELING OR FLAKING PAINT.**
- Wash your child's hands and face before eating and wash toys, furniture and floors often. If the water has not been used in the last 4-6 hours, let water run from the tap for a full two (2) minutes before drinking or using for cooking.
- Visit the Florida's Childhood Lead Poisoning Prevention Program website at <http://www.doh.state.fl.us/environment/community/lead> for more information on lead poisoning and lead poisoning prevention efforts.

Enclosed you will find brochures about the prevention of childhood lead poisoning. Again, please contact me so that I may further help you and your family.

Sincerely,

[name], [title]
[county health department]
[Address]

cc:



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

~Sample~

Sample Physician Notification Letter for an Elevated Blood Lead Level

[Date]

[Address]
[City, State, Zip Code]

Dear Dr. _____:

This letter is to inform you that your patient, **[CHILD’S NAME]**, **[DOB]**, of **[RESIDENCE ADDRESS]** has an elevated blood lead level of _____µg/dL. [A second test is required to confirm this result.] Please refer to the enclosed *Childhood Lead Poisoning Case Management Guidelines* to determine the appropriate retesting schedule. In addition to the retesting schedule this document also stresses the importance of testing at-risk children for anemia and providing developmental assessments to those in need.

As the Florida Department of Health case manager for your patient, **[CHILD’S NAME]**, **[DOB]**, my role is to foster and coordinate a partnership that includes you, your office, your patient and family, and myself, to provide quality health intervention services to reduce the elevated blood lead level. I will reinforce your Plan of Care by performing the following activities: providing follow-up patient and family education, keeping you up to date with the patient and family concerns and progress between visits, and assisting the patient and family in accessing necessary community services and resources.

I will be developing a *Child and Family Care Coordination Plan* for **[CHILD’S NAME]** with the family, to address their needs and concerns. Your role in providing follow up blood lead testing, testing for anemia and providing a developmental assessment will be defined in this plan. It is also hoped that the *Florida Department of Health Child and Family Care Coordination Plan* will be of support to you in creating a medical home environment. Please take a moment to review this document, and notify me if you have additional concerns or needs. I look forward to working with you, your staff and this family. Please feel free to contact me at the [county] County Health Department.

- Telephone number: _____
- Email address: _____
- Fax number: _____

Sincerely,

[name],
[title], [county health department]
[Address]
Cc: [Family]



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

~Sample~
Letter to Health Care Providers re: Blood Lead Reporting Requirements

[Date]

[Address]
[City, State, Zip Code]

Dear Dr. _____:

This letter is to inform you of the practitioner reporting requirements as it pertains to lead poisoning. Attached you will find a document entitled "*Blood Lead Test Reporting Requirements and Information for Practitioners.*" This document summarizes the blood lead test reporting responsibilities of practitioners as per **Chapter 64D-3 Florida Administrative Code (F.A.C.), Control of Communicable Diseases and Conditions Which may Significantly Affect Public Health.** It highlights general reporting requirements for all practitioners and special reporting requirements for practitioners who conduct on-site analysis (i.e. practitioners that perform their own blood lead analysis).

If you would like to obtain additional information that relates to Chapter 64D-3 F.A.C. please visit the following website: http://www.doh.state.fl.us/disease_ctrl/epi/topics/surv.htm.

If you have additional questions regarding blood lead test result reporting please contact the Florida Lead Poisoning Prevention Program (850) 245-4444 x2828.

Thank you for your assistance in combating lead poisoning!

Sincerely,

[name], [title]
[county health department]
[Address]

cc:

Enclosure



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

**Florida Department of Health
Childhood Lead Poisoning Prevention Program**

**Blood Lead Test Reporting Requirements and Information
for Practitioners**

This document summarizes the blood lead test reporting responsibilities of practitioners as per **Chapter 64D-3 Florida Administrative Code (F.A.C.), *Control of Communicable Diseases and Conditions Which may Significantly Affect Public Health***. General reporting requirements for all practitioners and special reporting requirements for practitioners who conduct on-site analysis (i.e. use lead care analyzers) are addressed below.

To obtain a copy of Chapter 64D-3 F.A.C. please visit the following website: http://www.doh.state.fl.us/disease_ctrl/epi/topics/surv.htm. If you have additional questions regarding blood lead test result reporting please contact the Florida Childhood Lead Poisoning Prevention Program (850) 245-4444 x2222.

General Reporting Requirements:

Practitioners who perform blood lead testing (e.g. collection of blood samples) must report lead poisoning cases (blood lead results of 10 micrograms per deciliter or greater) to the local county health department (CHD) by the end of the next business day following laboratory findings. Reports to CHDs must include the following information:

(a) The Patient's:

1. First and last name, including middle initial
2. Address, including city, state, and zip code
3. Telephone number, including area code
4. Date of birth
5. Sex
6. Race
7. Ethnicity (Hispanic / non-Hispanic)
8. Pregnancy status if applicable
9. Social Security number
10. Date of onset of symptoms (if applicable)
11. Diagnosis

(b) Type of diagnostic tests

(c) Type of specimen (e.g. venous vs. capillary specimen)

(d) Date of specimen collection

(f) Diagnostic test results

(g) Treatment given

(h) Name, address and telephone number of the attending practitioner

(i) Other necessary epidemiological information requested by the CHD

Information Provided by Practitioners to Laboratories with Each Blood Lead Specimen:

Practitioners are also responsible for obtaining and providing all of the following information to laboratories at the time the specimen is sent to or received by the laboratory. Supplying this information

Appendix J-3

enables laboratories to fulfill electronic laboratory reporting requirements under Chapter 64D-3.030, F.A.C.

(a) The Patient's:

1. First and last name, including middle initial
2. Address, including city, state, and zip code
3. Telephone number, including area code
4. Date of birth
5. Sex
6. Race
7. Ethnicity (Hispanic / non-Hispanic)
8. Pregnancy status if applicable
9. Social Security number

(b) Type of specimen (e.g. venous vs. capillary specimen)

(c) Date of specimen collection

(e) Submitting Provider's:

1. Name
2. Address including street, city, zip code
3. Telephone number, with area code of the provider requesting the test

Special Reporting Requirements for Practitioners that Conduct Blood Lead Analysis On-Site:

The November 20, 2006, revision of 64D-3, F.A.C. requires the results of all blood lead tests to be reported by laboratories. Practitioners who conduct blood lead testing and analysis using a lead care analyzer or who otherwise perform blood lead analysis are acting in the capacity of a laboratory and must also report the results of **all** blood lead tests electronically by the end of the next business day to the Florida Department of Health, Bureau of Community Environmental Health, Childhood Lead Poisoning Prevention Program, 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1712, (850) 245-4277. Reporting to the Florida Department of Health must occur in addition to reporting of lead poisoning cases to the CHD.

Enforcement and Penalties:

Any practitioner, hospital or laboratory who is subject to the provisions of this rule who fails to report a disease or condition as required by this rule or otherwise fails to act in accordance with this rule is guilty of a misdemeanor of the second degree, and, upon conviction thereof, shall be fined not more than five hundred dollars (\$500.00) as provided in Sections 775.082 or 775.083, F.S. Each violation is considered a separate offense. All violations by practitioners, hospitals or laboratories shall be reported to the appropriate professional licensing authorities and public financing programs.



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

~Sample~
Anticipatory Guidance (Blood Lead Level Less than 10 $\mu\text{g}/\text{dL}$) Family Notification Letter

[Date]
[Address]
[City, State, Zip Code]

Re: [Child's Name]

It has been reported to our office that your child, **[name of child]**, has a blood lead level of **[add blood lead level]** $\mu\text{g}/\text{dL}$. According to the Centers for Disease Control and Prevention (CDC) and the Florida Department of Health blood lead levels equal to or above 10 $\mu\text{g}/\text{dL}$ constitute lead poisoning. Your child's blood lead level is **not considered lead poisoning**. However, we want you to be aware of some important information.

Research has shown that any level of lead in the blood may have dangerous implications for the neurological and physical development of children. The presence of lead in your child's blood indicates that your child has been exposed to some source of lead. Continued exposure can lead to more harmful effects and lead poisoning. Safely removing lead hazards key to preventing further exposure. Please review the tips below.

TIPS FOR PREVENTING AND REDUCING LEAD EXPOSURE:

- Review the enclosed educational materials to learn more about potential lead sources in your home.
- Ask a doctor to conduct a blood lead test for any other children or pregnant women in the home.
- Make sure your child eats regular meals, including foods such as cereal, greens, cheese, and milk as they are high in calcium and iron.
- **BE ALERT AND KEEP CHILDREN AWAY FROM PEELING OR FLAKING PAINT.**
- Wash your child's hands and face before eating and wash toys, furniture and floors often. If the water has not been used in the last 4-6 hours, let water run from the tap for a full two (2) minutes before drinking or using for cooking.
- Consider having your home, or any secondary or alternate homes your child spends a lot time, evaluated for lead hazards.
- Visit the Florida's Childhood Lead Poisoning Prevention Program website at <http://www.doh.state.fl.us/environment/community/lead> for more information on lead poisoning and lead poisoning prevention efforts.

Please feel free to contact me so that I may further assist you and your family.

Sincerely,

[name], [title]
[county health department]
[Address]
[Phone]

Appendix L

Childhood Lead Poisoning Prevention Program
Case Management Report Form

Note: Case management is initiated when a confirmed blood lead level is ≥10µg/dL.

Instructions: Please complete this form in Merlin (Florida Department of Health reportable disease surveillance system) for lead poisoning cases. This information is being collected to assist you with your case management activities and to determine trends in lead poisoned individuals.

PERSONAL PROFILE (Report in Merlin)

Social Security Number: _____

Last _____ First _____

Middle: _____ Suffix: _____ Maiden: _____

Gender: [] M [] F [] Unknown

Date of Birth: ___/___/___

Race: [] African American [] America Indian/Alaskan [] Asian [] Other Pacific Islander
[] White [] Other Race [] Unknown

Ethnicity: [] Hispanic [] Non-Hispanic [] Unknown

Street Name 1: _____ Zip: _____

City: _____ State: _____ County: _____

Phone: (home) _____ Other Phone _____ Emergency Phone: _____

Emergency Contact: _____

BASIC DATA (Report in Merlin)

BASIC CASE INFORMATION

Blood Lead Level: _____ µg/dl Merlin Case No. _____

CASE INFORMATION

Assigned Case Manager (i.e. Investigator): _____

CLINICAL

Date reported to CHD: _____

CASE SYMPTOMS (From Merlin)

- 1. Abdominal pain [] Yes [] No [] Unknown If Yes, Date of Onset: _____
2. Constipation [] Yes [] No [] Unknown If Yes, Date of Onset: _____
3. Fatigue [] Yes [] No [] Unknown If Yes, Date of Onset: _____
4. Headache [] Yes [] No [] Unknown If Yes, Date of Onset: _____
5. Hearing loss [] Yes [] No [] Unknown If Yes, Date of Onset: _____
6. Hyperactivity [] Yes [] No [] Unknown If Yes, Date of Onset: _____
7. Lethargic [] Yes [] No [] Unknown If Yes, Date of Onset: _____
8. Loss of appetite [] Yes [] No [] Unknown If Yes, Date of Onset: _____
9. Malaise [] Yes [] No [] Unknown If Yes, Date of Onset: _____
10. Memory loss [] Yes [] No [] Unknown If Yes, Date of Onset: _____

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11. Seizures Yes No Unknown **If Yes, Date of Onset:** _____
12. Vomiting Yes No Unknown **If Yes, Date of Onset:** _____
13. Weight loss Yes No Unknown **If Yes, Date of Onset:** _____
14. Other: _____

EXTENDED PERSONAL PROFILE

- Other ID / Alias _____
- Parent / Guardian Name: _____ Relationship to patient: _____
- Medicaid: Yes No Unknown If Yes, Medicaid # _____
- Referred by other state: Yes No Unknown If yes, State: _____
- Refugee: Yes No Unknown If yes, Alien #: _____
- Foreign Born: Yes No Unknown If yes, country of origin: _____
Date of entry to US: ___/___/___
- Language Spoken: Primary: _____ Secondary: _____
- Housing: Year residence built: _____ Unknown

EXTENDED CLINICAL INFORMATION

1. Does the patient have other medical problems? Yes No Unknown
If yes, check all that apply
 Autism
 History of Anemia
 Asthma
 Behavior Disorder
 Developmental Delay
 Neurological abnormalities
 Other _____
2. Is patient asymptomatic? Yes No Unknown
3. Is Chelation being done? Yes No Unknown
If yes, is it Inpatient Outpatient Unknown
Date Chelation began: ___/___/___ Date Ended: ___/___/___
Medication Used: Demercaprol (BAL) Succimer (SUC) Penicillamine (PEN)
 Calcium Disodium Adetate Other Unknown
Funding source for Chelation: Public, includes Medicaid Private Insurance Parent Self Pay
 Other: _____ Unknown
4. What is the patient's appetite? Good Poor Changed Unknown
5. Is the patient pregnant? Yes No Unknown If yes, Due Date: _____

EXTENDED LEAD TEST INFORMATION

Please provide the following information on the initial and first follow blood lead test.

Initial Blood Lead Test:

Appendix L-3

1. Funding Source:
- | | |
|---|----------------------------------|
| <input type="checkbox"/> Public (e.g. Medicaid) | <input type="checkbox"/> Other |
| <input type="checkbox"/> Private insurance | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Parent self pay | |
2. Test Reason:
- | | |
|--|------------------------------------|
| <input type="checkbox"/> Child symptomatic | <input type="checkbox"/> Screening |
| <input type="checkbox"/> Confirmatory test | <input type="checkbox"/> Other |
| <input type="checkbox"/> Follow-up test | <input type="checkbox"/> Unknown |
3. Provider type (Ordering provider):
- | | |
|--|--|
| <input type="checkbox"/> CLPPP fixed-site specific to lead | <input type="checkbox"/> Referred for confirmation |
| <input type="checkbox"/> Door to door program | <input type="checkbox"/> No screening information |
| <input type="checkbox"/> Other fixed screening program | <input type="checkbox"/> Other |
| <input type="checkbox"/> Private health care provider | <input type="checkbox"/> Unknown |

Follow-Up Blood Lead Test:

1. Funding Source:
- | | |
|---|----------------------------------|
| <input type="checkbox"/> Public (e.g. Medicaid) | <input type="checkbox"/> Other |
| <input type="checkbox"/> Private insurance | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Parent self pay | |
2. Test Reason:
- | | |
|--|------------------------------------|
| <input type="checkbox"/> Child symptomatic | <input type="checkbox"/> Screening |
| <input type="checkbox"/> Confirmatory test | <input type="checkbox"/> Other |
| <input type="checkbox"/> Follow-up test | <input type="checkbox"/> Unknown |
3. Provider type (Ordering provider):
- | | |
|--|--|
| <input type="checkbox"/> CLPPP fixed-site specific to lead | <input type="checkbox"/> Referred for confirmation |
| <input type="checkbox"/> Door to door program | <input type="checkbox"/> No screening information |
| <input type="checkbox"/> Other fixed screening program | <input type="checkbox"/> Other |
| <input type="checkbox"/> Private health care provider | <input type="checkbox"/> Unknown |

RISKS & POTENTIAL SOURCES OF LEAD EXPOSURE (ENVIRONMENTAL HISTORY)

A. RISKS:

Note: If patient's response is "yes" or "unknown" please complete the form entitled "Resident Questionnaire for Investigation of Children with Elevated Blood Lead Levels."

Foreign Born / Foreign Travel

1. If the patient is U.S. born, did patient ever visit or live for an extended period (for more than 3 months) outside the USA?
 Yes No Unknown
If yes, country or countries lived in:
country1: _____ Date of entry to US: _____
country2: _____ Date of entry to US: _____
2. Was the patient foreign born? Yes No Unknown
3. Is the patient a refugee? Yes No Unknown
4. Is the patient adopted from a foreign country? Yes No Unknown
If yes, what country was the child adopted from? _____

Appendix L-4

Patient Behaviors

5. Does the patient have pica? (pica is the craving and eating of non-food substances e.g. dirt, paint chips, toys, jewelry or vinyl mini blinds, chalk, pottery)
 Yes No Unknown
6. Does the patient have contact with items containing lead? (e.g. leaded crystal, or pewter dishes and/or items not made in the United States such as: cosmetics, kohl, candies, spices, jewelry, ceramic dishware and/or home (or folk) remedies?)
 Yes No Unknown
7. Does the patient have mouthing behavior? (e.g., finger or thumb sucking)
 Yes No Unknown

Live in or Visit Home Built before 1978

8. Does the patient live in or frequently visit a pre-1950/1978 home?
 Yes No Unknown
9. Has the patient's residence ever been renovated?
 Yes, once Yes, more than once No Unknown
If yes: Date first renovation begun: ___/___/___ Date latest renovation completed: ___/___/___
10. Has the patient visited a recently renovated home?
 Yes No Unknown

Take Home/Workplace Exposure

11. Has the patient come in contact with an adult with lead exposure in an occupation/hobby?
 Yes No Unknown
12. Does the patient have an occupation/hobby that involves lead exposure?
 Yes No Unknown

Industrial/Roadway Hazards

13. Does the patient play in soil near a busy road, or an industrial site?, (e.g. battery recycling plant, junk yard, or lead smelter)
 Yes No Unknown

B. POTENTIAL SOURCES

Based on the information obtained from the environmental history, please indicate if any of the following are potential sources of exposure for this patient.

- | | | | | |
|--|------------------------------|-----------------------------|----------------------------------|---------------|
| 1. Imported food/candy | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 2. Imported traditional remedies/cosmetics | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 3. Imported or improperly fired pottery | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 4. Vinyl mini-blinds | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 5. Toys or jewelry | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 6. Tile flooring or counter tops | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 7. Lead-based paint hazard in the home | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 8. Lead-contaminated soil | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | |
| 9. Occupation of household member | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | If yes, _____ |
| 10. Hobby of household member | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | If yes, _____ |
| 11. Patient occupation | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown | If yes, _____ |
| 12. Other: _____ | | | | |

ENVIRONMENTAL INVESTIGATION

Merlin ID#:

CRITERIA: An **Elevated Blood Lead Level Environmental Health Investigation (EBLL EHI)** must be conducted by an EPA certified lead risk assessor for all children under the age of six (i.e., less than 72 months of age) with confirmed blood lead levels of $\geq 15 \mu\text{g/dL}$. In addition, the **EBLL EHI** should be considered (not required) when a child has a confirmed blood lead level $\geq 10 \mu\text{g/dL}$ and has a blood test taken more than three months from the date of confirmation with a result greater than or equal to the test result at confirmation.

1. Is an environmental investigation required?

Yes No

2. Was an environmental investigation performed?

Yes No

**If case meets criteria and an investigation was not conducted please indicate why:*

Address of Investigation:

Same as patient profile? Yes No If no, provide address for investigation below.

Address: _____ City: _____

Zip: _____ State: _____ Year built: _____

Investigation Background Information

1. Inspector Name: _____

2. Investigation reason: Meets criteria for an investigation Other: _____

3. Date address referred for investigation: ____/____/____

Investigation Site Information:

(NOTE: These questions should be asked prior to conducting the environmental health investigation)

1. Is the investigation site the patient's primary residence? Yes No If No: _____

2. Dwelling (Building) Type: Attached, Single Family Home Detached, Single Family Home
 School Multi-Unit Day Care Center Mobile Home Unknown Other _____

3. Ownership: Private, owner-occupied Rental, privately owned Rental, publicly owned
 Rental, Section 8 Unknown

Owner Information:

Owner Name: _____ Home Phone: _____ Other Phone: _____

Address: _____

City: _____ Zip: _____ State: _____

Investigation Findings

1. Was testing completed on the dwelling to determine the presence of lead based paint hazards?

Yes No If Yes, where? Interior Exterior Both Other _____

If tested, please document test findings:

Highest XRF reading: Interior Exterior

Result _____ Units: mg/cm²

Highest floor dust sample reading: Interior Exterior

Result _____ Units: ppm µg/ft²

Highest interior window sill dust sample reading:

Result: _____ Units: ppm µg/ft²

Highest interior window well dust sample reading:

Result: _____ Units: ppm µg/ft²

Highest paint chip sample reading: Interior Exterior

Result: _____ Units: ppm, mg/cm² mg/cm²

2. Based on the above results, were any lead-based paint **hazards** identified during the investigation? (i.e. peeling, chipping, or flaking paint or dust that meets or exceeds HUD and EPA's definition of a lead-based paint hazard) Yes No Unknown

3. Were any other lead hazards or potential sources identified during the investigation?

Yes No Unknown

If yes, check and complete the section below. **Report the highest reading only.**

Water: Yes No Not tested, if Yes: Result _____

Units: ppb µg/L

Soil: Yes No Not tested, if Yes: Result _____

Units: ppm µg/g

Imported food/candy: Yes No Not tested, if Yes: Result _____

Units: ppm µg/g

Imported traditional remedies/cosmetics: Yes No Not tested

if Yes: Result _____ Units: µg/g ppm

Imported or improperly fired pottery: Yes No Not tested

If Yes: Result _____ Units: mg/cm² µg/g ppm Test Method: XRF LAB

Vinyl mini-blinds: Yes No Not tested If Yes: Result _____

Units: mg/cm² µg/g ppm µ/ft² Test Method: XRF LAB(dust sample)

Toys or jewelry: Yes No Not tested, If Yes: Result _____

Units: mg/cm² µg/g ppm Test Method: XRF LAB

Tile flooring or counter tops: Yes No Not tested If Yes: Result _____

Units: mg/cm² µg/ft² ppm Test Type: XRF LAB (Dust Sample)

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4. Was a lead hazard due to occupation/hobby of household member?

Yes No Unknown

If yes, please identify the household member's occupation/hobby (Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Battery recycling, repair or manufacturing | <input type="checkbox"/> Heating/air conditioning/ ventilation maintenance |
| <input type="checkbox"/> Bridge painting/ repairing/ sandblasting | <input type="checkbox"/> Smelting or welding |
| <input type="checkbox"/> Firing range training and cleaning | <input type="checkbox"/> Jewelry/Crafts |
| <input type="checkbox"/> Home Remodel/Restore/Renovate | <input type="checkbox"/> Ceramics/Pottery |
| <input type="checkbox"/> Making/Casting fishing sinkers or bullets | <input type="checkbox"/> Stained glass making |
| <input type="checkbox"/> Furniture refinishing | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Auto or radiator repair, or auto painting | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Boat renovation, repair, building, painting | |

5. Were any potential industrial hazards identified near dwelling? (e.g., battery plant, smelter, radiator repair shop or electronics/ soldering industry) Yes No Unknown

If yes, please describe type _____

6. Based on your professional opinion as an EPA certified lead risk assessor, what is (are) the **most significant** source(s) of lead exposure identified during this environmental investigation? **(Check all that apply)**

- Imported food/candy
- Imported traditional remedies/cosmetics
- Imported or improperly fired pottery
- Vinyl mini-blinds
- Toys or jewelry
- Tile flooring or counter tops
- Lead-based paint hazard in the home
- Lead-contaminated soil
- Occupation of household member
- Hobby of household member
- Patient occupation
- Unknown
- Other _____

Other Findings:

Investigation Report Dates:

Date investigation completed ____/____/____

Date report provided to landlord / owner ____/____/____

Date report provided to patient/family ____/____/____

Comments or Recommendations:

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EXTENDED CASE MANAGEMENT SERVICES, REFERRALS & OUTCOMES

(Complete questions 1-8 for ALL confirmed cases).

1. Date caregiver notified: ____/____/____ If no, why? _____

2. Date Health and Environmental History Completed: ____/____/____ If no, why? _____

3. Date care plan developed: ____/____/____ If no, why? _____

4. Date health education provided to the patient/family: ____/____/____ If no, why? _____

Check how the education was provided (Check all that apply)

Home visit Telephone U.S. Mail Other: _____

5. Date case manager requested that the physician or trained professional complete developmental screening: ____/____/____ If not requested, why? _____

(Recommended for all children less than 6 years of age)

Was service received? Yes No Unknown

6. Please indicate referrals made for the patient and date referral made: (check all that apply)

Referral made

Date

Check if Patient enrolled / received service

Children's Medical Services ____/____/____

(Recommended for all children less than 6 years of age and pregnant women)

WIC ____/____/____

(Recommended for all children less than 5 years of age and pregnant women. Referrals may also be made for postpartum women up to 6-months after pregnancy and breastfeeding mothers up to 1-year after delivery if she continues to breastfeed)

Nutritional Assessment ____/____/____

(Recommended for all children less than 6 years of age and pregnant women)

Housing ____/____/____

Community / Social Services ____/____/____

(Healthy Start, Healthy Families, social worker, etc.)

Other: _____ ____/____/____

7. Are there other children less than 6 years of age living in residence? Yes No Unknown

If yes, date other children were recommended for testing: ____/____/____

Complete the following if known:

1: Name _____ Date of birth ____/____/____ Date of test: ____/____/____ Result ____ug/dL

2: Name _____ Date of birth ____/____/____ Date of test: ____/____/____ Result ____ug/dL

3: Name _____ Date of birth ____/____/____ Date of test: ____/____/____ Result ____ug/dL

8. Were any actions/environmental changes performed after the initial case assessment and/or environmental health investigation? Yes No

If yes, please check all *that apply*

Lead source removed date completed: ____/____/____

Interim controls date completed: ____/____/____

Abatement date completed: ____/____/____

Other _____ date completed: ____/____/____

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If remediation or abatement were performed, was clearance testing done?

Yes No Unknown If yes, date completed: ____/____/____

Clearance Testing Results: Passed Failed Unknown

9. Blood lead levels 20ug/dl and above ONLY:

Date case manager requested physician conduct a medical exam: ____/____/____

If not requested, why? _____ Was service received? Yes No Unknown

10. Blood lead levels 45ug/dl and above ONLY:

Date case manager requested physician conduct a complete neurological exam: ____/____/____

If not requested, why? _____ Was service received? Yes No Unknown

CASE CLOSURE INFORMATION

1. Case close date: Date: ____/____/____

If case is closed please select a reason for case closure:

Medical: Two confirmed blood lead levels below 10 µg/dL for six months, and an evaluation of the efficacy of interventions. (Venous and capillary blood specimens are accepted, however, venous is preferred). i.e. closure criteria met.

Client refusal of services

Unable to locate (lost to follow – up):

Date of initial letter: ____/____/____

Dates of phone calls: Date of 1st call ____/____/____ Time: _____

Date of 2nd call ____/____/____ Time: _____

Date of home visit: Date of 1st visit ____/____/____ Date of 2nd visit ____/____/____

Date of Certified Letter: ____/____/____

False positive

Out of compliance

Moved out of state: Referred to other state: Yes No

If yes, select state: _____

Date of referral: _____

Other: _____



Resident Questionnaire for Investigation of Children with Elevated Blood Lead Levels

(Adapted from HUD CHAPTER 16: Investigation and Treatment Of Dwellings Housing Children With Elevated Blood Lead Levels)

Purpose: The purpose of this questionnaire is to obtain additional risk / exposure information which can help the case manager and family prevent continued exposure. For cases requiring an environmental health investigation, it is to be used by environmental investigators to determine where environmental samples should be collected during the investigation.

Instructions: Contact the family to complete this form. This form should be completed by an environmental health investigator prior to an environmental health investigation. For cases that do not meet the criteria for an environmental health investigation, the case manager should complete the form if risks are identified while working with the patient or care giver to complete the “Risks and Sources” section of the Case Management Report Form.

Note: The * symbol indicates that the question is also found in the Environmental Section of the Lead Poisoning Case Management Report form.

Today's Date: _____

Demographic and Medical Information

Name _____
Last
First
Middle

Current Address: _____
Street
City
Zip Code

*Phone Number (____) _____-_____

*Date of Birth ____/____/____

*Most Recent Blood Lead Level ____ µg/dL Date reported to CHD ____/____/____

Family Information

1. Where does the caregiver think the child is / was exposed to lead hazards? _____

2. Is the child cared for away from the home? (This would include preschool, day-care center, day care home, or care provided by a relative or friend.)

If YES, complete the following:

Dates of Residency	Address (street, city, state, zip code)	Approximate age of dwelling	General condition of dwelling: Any remodeling or renovation? Any deteriorated paint?

Dwelling Information

1. *Dwelling (Building) Type: Attached, Single Family Home Detached, Single Family Home School
 Multi-Unit Mobile Home Day Care Center Other Unknown
2. *Ownership: Private, owner-occupied Rental, privately owned Rental, publicly owned
 Rental, Section 8 Unknown

Owner Information:

Owner Name: _____ Home Phone: _____ Other Phone: _____

Address: _____

City: _____ Zip: _____ State: _____

3. When did your family move to this home? _____

Complete the following for all addresses where the child has lived during the past 12 months:

Dates of Residency	Address (street, city, state, zip code)	Approximate age of dwelling	General condition of dwelling: Any remodeling or renovation? Any deteriorated paint?

Dwelling Use Patterns

1. Which entrance to the house is most frequently used by the family (front door, back door, or side door)? _____
2. Which window(s) is /are most frequently open in the home? _____
- * Note location and extent of any peeling, chipping, flaking, or deteriorated paint, visible chips and/or dust in these areas.

Lead-Based Paint and Lead Contaminated Dust Hazards

1. Has this dwelling been tested for lead-based paint or lead contaminated dust? Yes No (Circle)
 If yes, When? Where can this information be obtained? _____
2. Has any lead abatement work been conducted at this dwelling recently? Yes No (Circle)
3. Where does the child like to play, frequent or hide? (Include rooms, closets, porches, window, yard, outbuildings etc.)

Areas where the child likes to play or hide	Paint condition (intact, fair, poor, or not present)	Location of painted component with visible bite marks

Note location and extent of any visible chips and/or dust in window wells, on window sills, or on the floor directly beneath windows. Note location and extent of any other peeling, chipping, flaking, or deteriorated paint.

Lead in Soil Hazards

1. *Are there industrial hazards near dwelling? (e.g., battery plant, smelter, radiator repair shop or electronics/soldering industry) Yes No Unknown (Circle)
2. Is the dwelling located within two blocks of a major roadway, freeway, elevated highway, or other transportation structures? Yes No (Circle)
3. Are nearby buildings or structures being renovated, repainted or demolished? Yes No (Circle)

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4. Is there deteriorated paint on outside fences, garages, play structures, railings, building siding, windows, trims or mailboxes? Yes No (Circle)
5. Are there visible paint chips near the perimeter of the house, fences, garages, play structures? Yes No (Circle) If yes, what is the location? _____
6. Was gasoline or other solvents ever used to clean parts (automotive, farm equipment etc.) or disposed of at the property? Yes No (Circle)
7. Has anyone burned painted wood in a woodstove or fireplace? If yes, have you emptied ashes onto soil Yes No (Circle) If yes, where? _____
8. Where does the child play when playing outside?
(Also document type of surfaces; grassy, asphalt, bare soil, etc)
- | | | | | | |
|--------------------------|------------|--------------------------|-------------------|--------------------------|-----------------|
| <input type="checkbox"/> | Playground | <input type="checkbox"/> | Park | <input type="checkbox"/> | Front Yard |
| <input type="checkbox"/> | Back Yard | <input type="checkbox"/> | Neighbors
Yard | <input type="checkbox"/> | Other:
_____ |
9. Have there been any recent landscaping activities close to the home? Yes No (Circle)
If yes, where? _____
10. Does the family eat fruits and vegetables from a home-grown garden? Yes No (Circle)
If yes, where do you grow the food? _____
11. Has soil ever been tested for lead? Yes No (Circle)
If yes, where can this information be obtained? _____
12. Does the child reside with a dog, cat, or other pet that could track in contaminated soil or dust from the outside? Yes No (Circle) If yes, where does the pet sleep? _____

Occupational/Hobby Lead Hazards

1. *Do any household/family members have an occupation or hobby that involves lead exposure? Yes No Unknown (Circle)

If yes, please identify the household member's occupation/hobby

- Battery recycling, repair or manufacturing
- Bridge painting/ repairing/ sandblasting
- Firing range training and cleaning
- Home Remodel/Restore/Renovate
- Making/Casting Fishing Sinkers or bullets
- Furniture Refinishing
- Auto or radiator repair, or auto painting
- Boat renovation, repair, building, painting
- Heating/air conditioning/ ventilation maintenance
- Smelting or welding
- Jewelry/Crafts
- Ceramics/Pottery
- Stained Glass Making
- Other _____
- Other _____

2. If the response was "yes" to the question above, do any if these activities occur in the home? Yes No (Circle)

If yes, please indicate where: _____

3. Does the child/case have access to the area where the work/hobby takes place? Yes No (Circle)
4. Are work clothes separated from other laundry? Yes No (Circle)
5. If household member has a high-risk occupation, does the worker change clothes, shoes and shower before coming to the child's home? Yes No Unknown (Circle)
If No or Unknown, does the child have access to the household member's car, equipment or clothing/shoes that may be contaminated with dust from workplace? Yes No Unknown (Circle)
If yes, which items and what is there location? _____

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Child Behavior Risk Factors

- 1. Does the child chew on painted surfaces, such as old painted cribs, putty around windows, window sills, furniture edges, railings, door molding, or broom handles? Yes No (Circle)
If yes, specify: _____
- 2. Does child chew or eat paint chips or pick at painted surfaces? Yes No (Circle)
- 3. Does child put metal objects in the mouth? These might include toys and toy soldiers, jewelry, gunshot, bullets, beads, fishing sinkers, pewter dishes or souvenirs, etc. It may also include items containing solder, such as electronics? Yes No (Circle)
- 5. Does the child put matches in the mouth? (Some matches contain lead acetate) Yes No (Circle)
- 6. Does the child play with cosmetics, hair preparations, or talcum powder or put them into the mouth? Yes No (Circle)
If yes, are any of these foreign made? Yes No (Circle)
- 7. Does the child have a favorite cup? A favorite eating utensil? Yes No (Circle)
If yes, are they handmade, ceramic or pewter? _____

Water Lead Hazards

- 1. What type of plumbing is in the home?
 Plastic Galvanized Copper Lead Mixture Unknown (PVC)
- 2. What is the source of drinking water for the family? Municipal water Private well (Circle) Other (Specify): _____
- 3. Has new plumbing been installed within the last 5 years? Yes No Unknown (Circle)
If yes, identify location (s): _____
- 4. Did you do any of this work yourself? Yes No Unknown (Circle)
If yes, specify _____
- 5. Has the water ever been tested for lead? Yes No Unknown (Circle)
If yes, where can the results be obtained? _____

Other Household Risk Factors

- 1. Are imported cosmetics such as Kohl, Surma, or Ceruse used in the home? Yes No (Circle)
- 2. Does the family ever use any imported traditional home remedies or herbal treatments? Yes No (Circle)
If yes, what types _____
- 3. Does the family use metal (pewter), crystal, leaded glass, older family heirlooms or improperly glazed dishes/pottery to prepare, store or serve foods or beverages? Yes No (Circle)
If yes, type(s) and how often: _____
- 4. What containers are used to prepare, serve and store the child's food? Are any of them metal, soldered, or glazed? Does the family cook with a ceramic pot, commonly used for bean preparation?

- 5. Does the family use imported canned items regularly? Yes No (Circle)
- 6. Does the client/family use any imported spices? Yes No (Circle)
If yes, brand, types(s) and how often: _____
- 7. Are there any vinyl (plastic like) mini-blinds purchased before 1997 in the home? Yes No (Circle)
- 8. Does the child take baths in an old bathtub with deteriorated or nonexistent glazing? Yes No (Circle)

Florida Childhood Lead Poisoning Prevention Program

Lead Poisoning Care Plan

County Health Department

Activities	Partnerships Needed	Target Date	Date Complete	Notes
<i>REDUCTION/ELIMINATION OF LEAD HAZARDS</i>				
Collect an environmental and exposure history				
Conduct an EBLL EHI investigation				
Connection to community resources for interim controls or financial resources				
Referral to abatement service agencies				
<i>CAREGIVER LEAD EDUCATION</i>				
Education on sources and pathways				
Education on lead hazard reduction strategies				
Education on managing the child's nutrition				
Education about importance of medical follow up				
<i>IMPROVEMENT OF NUTRITION</i>				
Care giver counseling				
Referrals to WIC				
Referrals to other community food resources				
<i>MEDICAL FOLLOW UP</i>				
Schedule follow-up blood lead test				
Conduct the follow-up blood lead test				
Schedule a blood lead test to siblings or other at-risk children living in the home				
Referral to CMS				
<i>FOLLOW-UP OF OTHER IDENTIFIED PROBLEMS (REFERRALS AS NEEDED)</i>				
Referral for developmental assessment				
Referral to Head Start				
Referral to parent support				
Referral to early intervention				



AUTHORIZATION TO DISCLOSE CONFIDENTIAL INFORMATION

INFORMATION MAY BE DISCLOSED BY:

Person/Facility: _____ Phone #: _____

Address: _____ Fax #: _____

INFORMATION MAY BE DISCLOSED TO:

Person/Facility: _____ Phone #: _____

Address: _____ Fax #: _____

Other method of communication: _____

INFORMATION TO BE DISCLOSED: (Initial Selection)

- | | | |
|--|--|---|
| <input type="checkbox"/> General Medical Record(s), including STD and TB | <input type="checkbox"/> Progress Notes | <input type="checkbox"/> History and Physical Results |
| <input type="checkbox"/> Immunizations | <input type="checkbox"/> Family Planning | <input type="checkbox"/> Prenatal Records |
| <input type="checkbox"/> Diagnostic Test Reports (Specify Type of test(s)) _____ | | <input type="checkbox"/> Consultations |
| <input type="checkbox"/> Other: (specify) _____ | | |

I specifically authorize release of information relating to: (initial selection)

- | | |
|--|--|
| <input type="checkbox"/> HIV test results for non-treatment purposes | <input type="checkbox"/> Substance Abuse Service Provider Client Records |
| <input type="checkbox"/> Psychiatric, Psychological or Psychotherapeutic notes | <input type="checkbox"/> Early Intervention |
| | <input type="checkbox"/> WIC |

PURPOSE OF DISCLOSURE:

Continuity of Care Personal Use Other (specify) _____

EXPIRATION DATE: This authorization will expire (insert date or event) _____. I understand that if I fail to specify an expiration date or event, this authorization will expire twelve (12) months from the date on which it was signed.

REDISCLASURE: I understand that once the above information is disclosed, it may be redisclosed by the recipient and the information may not be protected by federal privacy laws or regulations.

CONDITIONING: I understand that completing this authorization form is voluntary. I realize that treatment will not be denied if I refuse to sign this form.

REVOICATION: I understand that I have the right to revoke this authorization any time. If I revoke this authorization, I understand that I must do so in writing and that I must present my revocation to the medical record department. I understand that the revocation will not apply to information that has already been released in response to this authorization. I understand that the revocation will not apply to my insurance company, Medicaid and Medicare.

Client/Representative Signature

Date

Printed Name

Representative's Relationship to Client

Witness (optional)

Date

- 1) **Client Name:** _____
- a) **ID#:** _____
- b) **DOB:** _____

DH 3203, [Approved November 2008]
(Stock Number: 5744-000-3203-1)

Original: To File **Copy:** To Client **Copy:** To Accompany Disclosure



Childhood Lead Poisoning Case Management Guidelines
Family Health Education Checklist

- Importance of Medical Follow Up**
 - All children in the home less than six years of age should receive a blood lead test.

- Sources & Pathways of Lead Exposure**
 - Lead-based paint and dust
 - Lead contaminated soil
 - Home remedies
 - Imported ethnic or cultural products
 - Take-home lead (lead carried home on the clothes or equipment of a individual whose hobby or occupation involves the use of lead)
 - Consumer products
 - jewelry
 - mini-blinds
 - imported candies
 - Pathways that should be addressed include:
 - Hand-to-mouth contact
 - Inhalation
 - Prenatal exposure

- Lead-based Paint Hazard Reduction Strategies**
 - Create barriers between living/play areas and lead sources
 - Regularly wash children's hands and toys
 - Regularly wet mop floors and wet wipe window components
 - Vacuum carpeted areas before wet mopping floors; cover carpeted floors with clean throw rugs
 - Leave shoes at the door. Use entry way mats
 - Prevent children from playing in soil. If possible, provide sandboxes
 - Consider relocation if lead contamination is extensive and not easily remediable
 - Interim controls (including lead safe work practices)
 - Lead abatement

- Lead Hazards in Water Control (if applicable)**
 - Do not cook with or allow children to drink hot tap water
 - Run the tap water cold for 1-2 minutes in the morning and then fill a pitcher with the water for drinking, cooking and formula preparation.
 - Use bottled water if drinking water is contaminated.

- "Take Home" Lead Hazard Control (if applicable)**
 - Those working with lead on the job or as a hobby should wash/shower and change work clothes and shoes before getting into their cars and before coming into the home or anywhere children frequent.
 - Always wash work clothing separately from other clothing.

- Nutrition Education**
 - Consume adequate amounts of bioavailable calcium and iron.
 - Consume a least two servings daily of foods high in vitamin C, such as fruits, vegetables, and juices.
 - Eat in areas that pose a low risk for lead exposure, for example at a table rather than on the floor.
 - Participate in the Special Supplemental Nutrition Program for Women, Infants and Children, if the family is eligible.



**~SAMPLE~
FAMILY RESOURCE LIST FOR COUNTIES**

Local Resources to Assist Families:

**The following resources assist homeowners in making their properties lead safe.

- Cover bare soil areas with mulch. Free mulch can be obtained by calling Florida Power at 727-895-8711.
- City of St. Petersburg's WIN Home Improvement Program has low interest loans to assist homeowners with lead hazard control repairs. Call 727-893-7247.
- Free paint is available at Pinellas County Utilities Household Electronics and Chemical Collection Center's SWAP shop located at 2990 110th Avenue North in St. Petersburg. Call 727-464-7500 for hours and time.
- Chore Services—Provides cleaning services in the home if a family member in home is 60 years or older. Call 727-327-3091 for details.

For Further Assistance and General Information:

- The United States Department of Housing and Urban Development may be reached at www.HUD.gov.
- The United States Environmental Protection Agency may be reached at www.EPA.gov.
- The Alliance for Healthy Homes may be reached at www.afhh.org.
- The Florida Housing Coalition may be reached at www.flhousing.org.

**Examples used from the Pinellas County Health Department.



Charlie Crist
Governor

Ana M. Viamonte Ros, M.D., M.P.H.
State Surgeon General

~SAMPLE~
Environmental Health Investigation (EHI) Report
Cover Letter

[Date]

[Homeowner Name/Renter Name]
[Homeowner Address/Renter Address]
[City, State, Zip Code]

Dear Mr./Ms./Mrs. **[name]**:

This attached report details the findings of the **Environmental Health Investigation (EHI)** conducted at **[address]** on **[date]**. The lead risk assessor(s)/inspector(s) of the **[county name]** County Health Department who performed this assessment is/are certified by the United States Environmental Protection Agency's (EPA) Lead-Based Paint Program.

Conclusions and Recommendations

After reviewing the test results, it was determined that lead hazards **[were/were not]** found at this address.

The **[county name]** County Health Department recommends the following:

[Provide specific lead poisoning prevention recommendations. These recommendations should be tailored specifically to the hazards found in the home, and match the report. Below are two examples.]

1. Replace windows and baseboards.
2. Cover bare soil with sod or mulch.

Additional recommendations are provided on page **[##]** of the attached report.

Requirements Under the Residential Lead-Based Paint Hazard Reduction Act

The Federal Residential Lead-Based Paint Hazard Reduction Act of 1992, 42 U.S.C. 4852d, requires sellers and landlords of residential housing built before 1978 to disclose all available records or reports concerning lead-based paint hazards, including the test reports contained in this notice, to purchasers and renters at the time of sale, lease, or lease renewal. This disclosure must occur even if hazard reduction or abatement has been completed.

Failure to disclose these test results is a violation of the United States Department of Housing and Urban Development (HUD) and the EPA regulations located in the Code of Federal Registry (24 CFR Part 35 and 40 CFR Part 745). Violation can result in a fine of up to \$11,000 per violation. To find out more information about this rule, call 1-800-424 LEAD.

Sincerely,

[Name], [Title]
[county name] County Health Department
[Address]
[City, State, Zip Code]
cc:

~SAMPLE~

Environmental Health Investigation (EHI) REPORT

For: *[Add Address of Property]*

Date Completed: *[Add Date]*

Investigation Conducted By: *[Add name of EPA Certified Risk Assessor]*

**[Add Name & Address of County Health Department]
[Include a picture of the property on this cover page, if available]**

This Environmental Health Investigation (EHI) is conducted according to the United States Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

In compliance with:

- Title X of the Housing and Community Development Act
- Section 1017 of the Residential Lead-Based Paint Hazard Reduction Act
- Code of Federal Regulations - 24 CFR Part 35

DISCLAIMER: The presence or absence of lead-based paint or lead-based paint hazards or other hazards applies only to tested or assessed surfaces on the date of the field visit, and that condition may change due to deterioration or maintenance. Ongoing monitoring by the owner is usually necessary.

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- Interim Control Measures
- Abatement Measures

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- Resource List
- Pictures

VI. Attachments

- Protect Your Family From Lead In Your Home (Pamphlet)
- Confirmation of Receipt of Lead Pamphlet

I. Summary

Introduction

An Environmental Health Investigation (EHI for assessment of lead risks was conducted at **[Address]** on **[Date]**. The lead assessment was completed by **[Name of EPA certified lead risk assessor]**, an Environmental Protection Agency (EPA) Certified Lead Risk Assessor **[Enter Certification #]**. The purpose of this activity is to determine and then report the existence, nature, severity and location of lead- based paint hazards, and to define options for controlling those hazards [Section 401(16) of Toxic Substances Control Act].

Summary of testing and hazards

Paint: While the building and its paint are in relatively good condition, the EHI showed that lead hazards exist in the following locations:

1. **[Add Location 1]**
2. **[Add Location 2]**
3. **[Add Location 3]**

A few other painted surfaces that have not been tested for the presence of lead are in “fair” condition, and should be repainted within the next year before further deterioration occurs. Those surfaces are:

1. **[Add Surface 1 (i.e., Front Exterior Door)]**
2. **[Add Surface 2]**
3. **[Add Surface 3]**

A lead-based paint inspection of all painted surfaces is recommended so that potential lead problems can be monitored before they become hazardous.

Soil: Soil levels were **[add results if tested]**.

Water: Water levels were **[add results if tested]**.

Other: Toys, spices, etc. were **[add results if tested]**.

Recommendations

The following recommendations are included in this report for the property owner and/or resident.

1. **[Add Recommendation 1]** (i.e., stabilize the paint on exterior of all the windows, use a HEPA vacuum to remove dust located in the child’s bedroom, replace door leading to kitchen)
2. **[Add Recommendation 2]**
3. **[Add Recommendation 3]**

After cleaning and paint film stabilization work has been completed, clearance dust samples are recommended to make certain that the dwelling is lead-safe before a family occupies the space.

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II. Identifying Information

Date of Environmental Health
Investigation: _____

Note: The findings contained in this report apply only to the date of assessment. Conditions at the dwelling may change, and ongoing monitoring by the property owner is recommended.

Property assessed: _____

Date of construction: _____

Owner(s): _____

Owner's address
(if different from above): _____

Owner's phone number(s): Home: (xxx) xxx-xxxx

Work: _____

Cell: _____

Owner's e-mail address: _____

Is/Are the owner(s) the current resident of the above property? Yes No

If "No,"

Resident's name: _____

Resident's phone number: _____

Investigator

Certification #:
Effective:
Expires:
Control #:

Certifying Firm

Address:
Florida Department of Health
4052 Bald Cypress Way
Bin A08
Tallahassee, Florida 32399
Phone:

Certification #:
Effective:
Expires:
Control #:

Laboratory
Analysis
Conducted By:

Address:
Phone:

III. Environmental Results and Analysis of Onsite Evaluation, Environmental Sampling, Visual Assessment and Recommendations

a. Building Condition Checklist

The condition of the building is reviewed during an EHI to determine if there are any underlying problems with the structure, such as holes or cracks. These problems often result in leaks and water damage, which may contribute to the presence or worsening of lead-based paint hazards. The following was observed of the property on **[Date]**.

Condition	Yes	No
Roof missing parts of surfaces (ties, boards, shakes, etc.)		
Roof has holes or large cracks		
Gutter or downspouts broken or missing		
Chimney masonry cracked, bricks loose or missing, obviously out of plumb		
Exterior or interior walls have obvious large cracks or holes, requiring more than routine painting (if masonry) or painting		
Exterior siding has missing boards or shingles		
Water stains on interior walls or ceilings		
Plaster walls or ceilings deteriorated		
Two (2) or more windows or doors broken, missing, or boarded up		
Porch or steps have major elements broken, missing, or boarded up		
Foundation has major cracks, missing materials, structural leans, or visibly unsound		
[Add any other structural problems that may contribute to lead hazards]		
TOTAL NUMBER OF OBSERVATIONS (“Yes” is checked)		

Note: If the “Yes” column has two (2) or more checks, the dwelling is considered to be in poor condition. Less than two (2) checks in the “Yes” column means that the dwelling appears to be well maintained. It is recommended that the problems identified are fixed to prevent further deterioration of the property.

b. Paint Sample Readings

This section details the results of paint samples collected or taken during the EHI. Please note that not all possible surfaces may be tested. Surfaces similar to those testing positive are also likely to contain lead-based paint. The Federal Standard according to HUD is 5,000 µg or 1 mg/cm². There are two (2) types of sampling that can be conducted: a paint chip analysis conducted at a certified environmental laboratory, or a test using an X-Ray Florescence (XRF) analyzer. Both are described below.

1. Paint Chip Collection and Analysis: The paint chip lab analysis method is simple. Paint samples are taken from a painted surface. The samples are sent to a lab. The tests show how much lead is in the paint. The lab reports the results.

HUD recommends that paint chip samples be taken from a 4-square-inch area of paint. The 4-square-inch area may be of any shape (a 2- by 2-inch square, or a 1- by 4-inch rectangle, for example). Areas from which paint chip samples are collected should be repaired to prevent exposure in the event the paint contains lead. Also, take representative samples of the paint from several areas. Record the location of each sample.

All layers of paint must be removed, since the lower layers are more likely to contain lead. Include as little as possible of the underlying material (wood, plaster, metal, or brick) in the sample. The test results are reported in percent of lead by sample weight. Adding substrate material in the sample would give erroneous results.

All laboratories analyzing lead paint must participate in the EPA's National Lead Laboratory Accreditation Program, and be accredited by an organization recognized by the EPA.

2. X-Ray Fluorescence (XRF) Analyzer: This method is a nationally recognized method for onsite testing of lead in paint. The testing protocol adheres to the EPA Performance Characteristic sheet for this particular instrument used, as well as the manufacturer's modifications and recommendations. The XRF analyzer used is the NITON XL-309 Spectrum Analyzer Lead Detector. According to HUD, an XRF reading of 1.0 mg/cm² or above is considered positive for the presence of lead-based paint, and an XRF reading below 1.0 mg/cm² is considered negative.

Paint Sample Readings						
Sample Number	Room (record name of room used by owner or resident)	Building Component/ Surface (indicate: window, door, floor, etc.)	Sample Type (XRF or paint chip)	Laboratory Result (Paint chip: µg/g or XRF: mg/cm ²)	Does the Result Exceed the Federal Standard ? (Yes or No)	Recommendations

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c. Dust Sample Readings

This section describes the soil samples and results collected at the property. Each result listed below constitutes a single sample only. All dust samples are taken according to a protocol defined by HUD. HUD defines standards for the amount of lead in dust depending on location. These standards are shown below.

Federal Standards: HUD Standards

Floors: 100 $\mu\text{g}/\text{ft}^2$

Interior window sills: 500 $\mu\text{g}/\text{ft}^2$

Window troughs: 800 $\mu\text{g}/\text{ft}^2$

Dust Sample Readings								
Sample Number	Room (record name of room used by owner or resident)	Building Component/ Surface (indicate: window troughs, door, floor, etc.)	Smooth and Cleanable ? (indicate: Yes or No)	Dimensions of Sample Area		Lab Result	Exceed the Federal Standard? (Yes or No)	Recommendations
				Inches x Inches (measure to nearest 1/8 th inch)	Ft²			

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d. Soil Sample Readings

This section details the results of soil samples taken at the property. During a soil sample environmental specialists collect a sample of only the top ½ inch of soil, and send it to a certified laboratory for analysis. Soil is considered a health hazard if it exceeds the following guidance set forth by HUD and EPA: 400 µg/g in areas children have access to soil, and 2,000 µg/g in areas children are not likely to have access to bare soil.

Soil Sample Readings					
Sample Number	Sample Location	Bare or Covered?	Laboratory Result	Does the Result Exceed the Federal Standard? (Yes or No)	Recommendations

e. Water Sample Readings

In some cases, water samples are taken during an investigation. Typically these samples are sent to a certified laboratory for appropriate analysis. The chart below describes what samples were taken and the results.

Water Sample Readings					
Sample Number	Sample Location	Time of Day	Laboratory Result	Does the Result Exceed the Federal Standard? (Yes, No or Unknown)	Recommendations

Appendix R-10

f. Other Sample Readings

In some cases, additional samples are taken during an investigation (toys, spices, etc.). Typically these samples are sent to a certified laboratory for appropriate analysis. The chart below describes what samples were taken and the results.

Other Sample Readings					
Sample Number	Item	Description of Item Use	Laboratory Result	Does the Result Exceed the Federal Standard? (Yes, No or Unknown)	Recommendations

III: Background Information on Priority Lead Hazard Control Options

This section provides additional background information regarding lead hazard control options. It is provided to ensure understanding of the recommendations provided in the previous section.

Do not try to remove lead-based paint yourself without proper training and materials. The removal of lead-based paint requires specialized equipment, techniques, and skills to protect workers and families from severe lead poisoning. No one should disturb lead-based paint unless she or he has received special training.

There are two (2) fundamental methods for controlling lead-based paint hazards: interim controls and lead-based paint abatement.

Interim controls are actions undertaken to immediately control lead hazards and prevent lead exposure. When interim control measures are used, homeowners must monitor and continuously provide maintenance to that area. This is necessary because controls are not permanent, and hazardous conditions could develop at any time. Surfaces that are chipping and peeling create a hazard in the home.

Interim control measures include:

- **Paint film stabilization** - Paint film stabilization involves repairing deteriorated paint, and creates a stable, intact painted surface. Five (5) key steps are:
 1. Complete any prerequisite repairs to control moisture or substrate problems.

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2. Remove all loose surface material using lead safe work practices, including wet scraping and wet sanding, and proper clean up using a three (3) bucket wash process and a HEPA vacuum.
 3. Elimination of surface contaminants because they can prevent adhesion of new paint and pose a health hazard. To eliminate surface contaminants, vacuum with a HEPA vacuum. Wipe with a sponge, and soap and water. Rinse with clean water. Wash again and rinse again with clean water. Once the surface is dry, vacuum the area one last time with a HEPA vacuum.
 4. Apply an appropriate primer to the surface.
 5. Apply an appropriate top coat of paint.
- **Friction and impact reduction treatments** - Friction surfaces can be treated either by covering the surfaces with abrasion resistant materials to eliminate the friction, or by repairing the component to good working condition so that friction is no longer occurring and creating dust. Impact surfaces can be protected by placing barriers in front of the impact surface (e.g., chair rails, molding, or door stops).
 - **Dust removal** - Dust removal involves extensive and specialized cleaning. In general, it is most effective if the surfaces are “cleanable” (i.e., smooth and intact, thus making dust accessible for cleaning). Dust removal is performed when dust levels are above applicable standards and after the source of dust has been controlled.

Undertaking dust removal without addressing the source of the dust is not a permanent solution to addressing lead dust contamination. In general, a combination of HEPA vacuuming and wet washing is required. HEPA vacuuming alone is appropriate for upholstered furnishings and rugs.

- **Soil covering using non-permanent means (e.g., grass, mulch or gravel)** - Addressing contaminated soil using non-permanent means includes one or more of the following:
 1. Planting ground cover or shrubbery to reduce exposure to bare soil.
 2. Moving play equipment away from contaminated bare soil.
 3. Restricting access through posting, fencing or other actions.
 3. Controlling further contamination of areas by addressing the source of lead (i.e., chipping and peeling paint).
 4. Removing and replacing contaminated soil, and establishing a permanent barrier (e.g., paving) are abatement measures that are discussed below.
- **Reducing exposure to lead in water** - Families can take the following actions to reduce exposure to lead in water:
 1. Do not cook with or allow children to drink hot tap water.
 2. Run the tap water on cold for one (1) to two (2) minutes in the morning, and then fill a pitcher with the water for drinking, cooking and formula preparation.
 3. Use bottled water if drinking water is contaminated.

Lead Abatement provides longer lasting, more durable control of the lead hazards by removing chipping and/or peeling lead-based paint, replacing the painted components, or enclosing or encapsulating the painted surfaces. Abatement is a permanent way to ensure that your property is “lead-safe,” so that ongoing monitoring and maintenance of lead painted surfaces will not be required in the future.

Lead abatement measures include:

- **Removal** - Sometimes the lead contamination can only be controlled by physical removal or restrictions to access the contaminated area. High lead in soil can also be abated with an impermeable covering, such as concrete or asphalt. Deteriorated lead-based paint, carpet and soil most often fall into this category. This control is usually the most expensive because of the

potential for further lead contamination to people and property. The paint to be removed is considered toxic waste, and is disposed of in a regulated manner.

- **Building component replacement** - Replacement of components that are lead dust generators, such as wood casement windows and doors, are most often the items that fall into this category. All friction, abrasion and impact areas are suspect. Stair treads, drawers and cabinets all have aspects of friction, abrasion and impacts that may require some control measures. Lead in water from pipes can be reduced by removing old lead pipes or pipes with lead solder, and replaced with lead-free pipes.
- **Enclosure** - A mechanically attached covering that protects the leaded surface. Examples of this method include sheetrock, paneling and siding. Full enclosure means sealing the sides of the enclosure material to prevent lead dust from escaping the enclosure materials. Enclosure methods may pose recontamination risk if remodeling is ever performed.
- **Encapsulation** - This is a paint coating to contain the lead-based paint. Encapsulation can be an interim control if the coating is warranted for less than twenty (20) years, or abatement if it is warranted for more than twenty (20) years. The condition of the substrate and the adhesion of the underlying paints are considered when this control is part of the lead risk assessment. Lead-based paint may have to be wet scraped or wet sanded to be prepared for encapsulation. Preparation by someone other than a **lead abatement worker, supervisor or project designer** could result in serious lead contamination that could cause serious health problems and expensive abatement procedures.

Attachment 1: Glossary

Abatement - Any method that is used to stop or control the lead hazard, and that will last for more than twenty (20) years. Abatement can include any or all of the following procedures: **removal, replacement, enclosure and encapsulation.**

Clearance Test - This is a visual inspection of the interim or abatement controls that were implemented to limit the lead hazard. Dust wipe samples are usually the primary means for measuring the effectiveness of the control and required cleaning.

Interim Control - Any method that is used to control the lead hazard that will last for less than twenty (20) years. Interim controls should be followed up with a **clearance test** repeated on a scheduled regular basis to evaluate the effectiveness of the interim control. Additional interim controls or abatement may be needed to stop the lead contamination.

Attachment 2: List of Resources for Addressing Lead-Based Paint Hazards

[List available community resources for addressing the hazards identified. Include their address and contact information. This may include a list of certified lead risk assessors; a list of community-based organizations that provide grants or other funding for emergency renovation, repair or weatherization; a city government program that provides free mulch or ground cover; etc.]

Attachment 3: Pictures of Identified Hazards

[If desired, paste pictures here. Be sure to describe the hazard identified in the photo. You may also describe recommendations to address the hazard. **Note: including pictures is suggested, but not required.**]