Lead

Kentucky Childhood Lead Poisoning Prevention Program (KYCLPPP)

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CLINICAL PROTOCOLS

FOLLOW UP INTERVENTION ON ELEVATED BLOOD LED LEVELS

Childhood Lead Poisoning Prevention Program (CLPPP)
Lead Poisoning Prevention Screening Guide

Child enrolled in Medicaid?

YES → **HIGH RISK:** Ensure **blood** lead screening for all at-risk patients. Refer to your LHD EPSDT policy for screens/reimbursement. Upon receipt of the elevated results, notify parents/prenatal patient and follow case intervention and health education guidelines set forth by the KY Department for Public Health and the Childhood Lead Poisoning Prevention Program. All Medicaid children require a blood lead test at ages 12 and 24 months and any time 25-72 months of age if not previously tested (SEE NOTE).

NO → **Pregnant Women**

Review Lead Poisoning Verbal Risk Assessment* to determine patient lead based health hazard risks
Are there any lead hazard sources identified?

YES → **Answers "Yes" or "Don't Know" to one or more questions on Lead Poisoning Verbal Risk Assessment*.** → **HIGH RISK:** Ensure **blood** lead screening for all at-risk patients. Refer to your LHD EPSDT policy for screens/reimbursement. Upon receipt of the elevated results, notify parents/prenatal patient and follow case intervention and health education guidelines set forth by the KY Department for Public Health and the Childhood Lead Poisoning Prevention Program. All Medicaid children require a blood lead test at ages 12 and 24 months and any time 25-72 months of age if not previously tested (SEE NOTE).

NO → **Answers "No" to all questions on the Lead Poisoning Verbal Risk Assessment.** → **LOW RISK:** Individual has no known risk factors for lead at this time. Administer Lead Poisoning Verbal Risk Assessment *at next preventative visit

*American Academy of Pediatrics (AAP) recommends lead poisoning verbal risk assessment to be performed at ages 6, 9, 12, 18, and 24 months, and ages 3, 4, 5, and 6 years (72 months of age and younger) with a blood lead test performed for "Yes or Don't Know" response to any question. AAP recommends and **Medicaid requires** blood lead testing at ages 12 and 24 months.

NOTE: According to the Centers for Medicare & Medicaid Services' Early and Periodic Screening, Diagnosis and Treatment (EPSDT) guidelines, all preventive EPSDT examinations must include a blood lead laboratory test for children at 12 and 24 months of age and anytime under the age of 72 months if not previously tested. Refer to your LHD EPSDT policy for screens/reimbursement.

PRENATAL: See CCSG Prenatal section for lead screening guidelines for at-risk patients

LEAD POISONING VERBAL RISK ASSESSMENT

Children 72 months of age and younger

The Lead Poisoning Verbal Risk Assessment questions should be reviewed at every preventive visit for all children ages 6 months through 6 years to determine the patient's exposure risk to lead hazard. The American Academy of Pediatrics (AAP) recommends that the verbal risk assessment be performed at ages 6, 9, 12, 18, and 24 months, and ages 3, 4, 5, and 6 years. A blood lead test should be performed for any yes or don't know response to any question on the assessment. AAP recommends blood lead testing for children ages at ages 12 and 24 months.

Pregnant Women (See also the prenatal section for Lead Screening Guidelines/ Follow-Up)

Review each of these questions at the positive pregnancy test visit or initial prenatal visit to determine if patient is at-risk for lead hazards. Document in the medical record at the positive pregnancy test/initial prenatal visit and anytime that the assessment was done, any positive response(s), and action taken according to the class chart guidelines located in the Prenatal section.

The Lead Poisoning Verbal Risk Assessment questions are included on Health Risk Assessments ACH 25, 90 and 91. A copy of the Lead Poisoning Verbal Risk Assessment should be used at preventive visits and can be found at http://chfs.ky.gov/NR/rdonlyres/894A7D46-2E98-4CA6-B30E-4BE48B465FF7/0/LEADPoisoningVerbalRiskAssessmentQuestionnaireJUNE2016.pdf and reviews common lead hazards.

Document in the patient's medical record when Lead Poisoning Verbal Risk Assessment was completed, any positive response(s) and action(s) taken:

- A "Yes" or "Don't Know" response to any question on the Lead Poisoning Verbal Risk Assessment will warrant a blood lead screening test at that time, regardless of the child's payer source or zip code area.
- Any child having a positive risk factor but not having an elevated blood lead level (EBLL) should be provided lead poisoning preventive education and tested at least annually, (≤ 72 months of age) as long as any risk factor exists.

BLOOD LEAD TESTING

Blood lead testing should be provided for at-risk patients. At-risk patients include children seventy-two (72) months of age and younger and pregnant women who:

1. Are enrolled in Medicaid.
2. Have a yes or don't know response to any question on the Lead Poisoning Verbal Risk Assessment.

Medicaid requires blood lead testing for enrolled children at ages 12 and 24 months of age and for all children < 72 months of age who do not have a documented blood lead test.

BLOOD LEAD SPECIMEN COLLECTION GUIDELINES

Contamination errors are common in trace metal analysis and precautions must be taken to eliminate or reduce them.

All LHD staff obtaining blood lead **specimens** must view CDC's Blood Lead Collection Guidelines at: http://www.cdc.gov/nceh/lead/training/blood_lead_samples.htm as indicated in the Training Requirements: Administrative Reference (AR)/Training Guidelines and Program Descriptions.

All LHD staff obtaining blood lead specimens must be familiar with their analyzing labs' requirements on blood lead specimen collection (check with the LHD analyzing lab) as indicated in the Training Requirements: AR/ Training Guidelines and Program Descriptions.

All LHDs using LeadCare devices must be familiar with its specific user manual instructions on its use, KY Clinical Laboratory Improvement Amendments (CLIA) obligations and state (KRS 211.902) reporting requirements. A LeadCare device is not acceptable for confirming an elevated blood lead ≥ 5 micrograms per deciliter (µg/dL). LeadCare devices can only to be used as a screening tool and is not a diagnosis tool.

Blood Specimen Collection Guidelines can be found at: http://chfs.ky.gov/dph/mch/cfhi/clppp.htm.

COMPLETION OF LABORATORY SUBMISSION FORMS

Please fill out lab requisition forms accurately and completely, including your agency as the provider.

A. SCREENING

This should be checked for:

- initial capillary sample;
- first venous sample (venous samples should always be taken on pregnant women)
- re-screenings of children with levels ≥ 5 µg/dL
- screening tests being repeated due to clot, insufficient quantity, or any other reason the sample could not be analyzed (incorrect collection technique)

B. CONFIRMATORY (Confirm blood lead level per follow-up guidelines)

This should be checked for:

- the *second capillary* sample when the first capillary sample was ≥ 5 µg/dL
- venous samples submitted as confirmatory samples after a first capillary sample was equal to or greater than 5 µg/dL, and
- confirmatory tests being repeated due to clot, insufficient quantity, or any other reason the sample could not be analyzed.

C. MEDICAL FOLLOW-UP

This should be checked for:

- follow-up blood lead tests on all children who have been identified with an EBLL and;
- medical follow-up tests being repeated due to clot, insufficient quantity, or any other reason the sample could not be analyzed.

NOTE: Venipunctures are considered a confirmed specimen. For EBLLs, provide follow-up as indicated in the "Guidelines for Follow-Up on Blood Lead Levels."

NOTE: See Administrative Reference for payment procedures.

<table>
<tr><th colspan="4">Initial Elevated Results</th></tr>
<tr><th>Blood Lead Level</th><th>Assessment</th><th>Interventions</th><th>Follow-Up</th></tr>
<tr><td>1-4.9µg/dL</td><td>Not considered an elevated lead level

(No amount of lead in the body is normal. Even low blood lead levels can cause adverse neurological effects such as loss of IQ points and learning disabilities. It is very important that education on ways to prevent lead poisoning begin at this level.)</td><td>• Lead Poisoning Prevention Education
• If a screening test is completed at the LHD, anticipatory guidance and education should be reviewed with parent/guardian to include:
o What is lead
o The effects of lead
o Potential lead sources
o Temporary measures to control exposure
o Dietary interventions,
o Proper hand washing and housecleaning techniques</td><td>• Continue to review risk assessment questions at each preventive health visit up to ≤ 72 months of age.</td></tr>
<tr><td>5–9.9 µg/dL</td><td rowspan="4">Confirm BLL if initial test is capillary.

Venous is considered confirmed.</td><td rowspan="2">• Confirm BLL immediately if initial test was capillary.
• Confirmatory tests should occur well before 12 weeks.</td><td rowspan="2">• Ensure BLL is confirmed.
• DO NOT wait to confirm. This only prolongs potential exposure.</td></tr>
<tr><td>10-14.9 µg/dL</td></tr>
<tr><td>15-44.9 µg/dL</td></tr>
<tr><td>45–69.9 µg/dL</td><td>• Confirm BLL ASAP with a venous specimen if the initial test was capillary.</td><td>• Ensure BLL is confirmed
• Refer to PCP within 48 hours for medical evaluation.</td></tr>
<tr><td>≥ 70 µg/dL</td><td>• MEDICAL EMERGENCY: Confirm BLL ASAP with a venous specimen if the initial test was capillary.</td><td>• Ensure BLL if confirmed
• Refer to PCP within 24 hours for medical evaluation.</td></tr>
</table>

Confirmed Elevated Results			
Blood Lead Level	**Assessment**	**Interventions**	**Follow-up**

5–14.9 µg/dL	Considered an elevated blood lead level (EBLL).
	
	Complete case management forms*
		Home Visit:
		• A Visual Investigative Home Visit* *must* be made within **30 DAYS OR SOONER** of confirmed EBLL result to help families visually identify potential lead hazards.
		
		• A review on how to minimize the child's lead hazard exposure should be completed during this home visit.
		
		Lead Poisoning Prevention Education:
		• Review with parent/guardian:
		  • What is lead
		  • The effects of lead
		  • Potential lead sources
		  • Temporary measures to control exposure
		  • Dietary interventions,
		  • Proper hand washing and housecleaning techniques
		Referrals:
		• Refer for WIC services
		• Refer for Medical Nutrition Therapy
			• Follow-up tests should be repeated every 12 weeks (or as ordered by physician if more frequent) until blood lead level is < 5 µg/dL.
			
			• Establish a tracking system that ensures retesting and follow-up intervention.
			
			• Environmental: Lead hazards have been addressed.

*Fax case management and home visit forms to KYCLPPP once these interventions have occurred. **Do not** send a home visit form without the environmentalist's section.			

Confirmed Elevated Results Continued			
Blood Lead Level	**Assessment**	**Interventions**	**Follow-up**

≥15 µg/dL	Considered an elevated blood lead level (EBLL).
	
	Venous specimens preferred for follow-up to improve reliability of results.
	
	Complete case management forms*
		Home Visit:
		• A Visual Investigative Home Visit* *must* be made within **1 WEEK OR SOONER** of confirmed EBLL result to help families visually identify potential lead hazards.
		• A review on how to minimize the child's lead hazard exposure should be completed during this home visit.
		
		Lead Poisoning Prevention Education:
		• Review with parent/guardian:
		  • What is lead
		  • The effects of lead
		  • Potential lead sources
		  • Temporary measures to control exposure
		  • Dietary interventions,
		  • Proper hand washing and housecleaning techniques
		
		Referrals:
		• Refer for WIC services
		• Refer for Medical Nutrition Therapy (to occur within two weeks to ensure prevention of further lead absorption).
		• Refer case to LHD environmentalist for a Certified Risk Assessment (this is different than a home visit) within two weeks of LHD receiving confirmed EBLL results.
		
		• Refer to a primary care provider (PCP) for medical evaluation. For EBLLs ≥25 µg/dL, please provide PCP with information on lead specialist consult.
			• Repeat blood lead tests at 1–2 month intervals until blood lead level is < 5 µg/dL for 6 months (or as ordered by the physician if more frequent).
			
			• Establish a tracking system that ensures follow-up retesting and interventions.
			
			• Environmental: Lead hazards have been addressed.
			
			• The case manager should assure a certified risk assessment is completed once it has been referred.

*Fax case management and home visit forms to KYCLPPP once these interventions have occurred. **Do not** send a home visit form without the environmentalist's section.			

LEAD POISONING PREVENTION AND EBLL MANAGEMENT

EBLL FOLLOW-UP INTERVENTION

According to the Centers for Disease Control and Prevention (CDC), case management of children and pregnant women with elevated blood lead levels (EBLLs) involves the coordination, provision and oversight of services required to reduce blood lead levels to below a level of concern. A hallmark of effective case management is the ongoing communication with caregivers and other service providers. This is a cooperative approach to solving any problems that may arise during efforts to decrease the patient's EBLL by reducing or eliminating lead based health hazard exposure in the patient's environment.

Case management is much more than a simple referral to other service providers. There are eight components, which should be under the purview of a registered nurse:

- Client identification and outreach
- Individual assessment and diagnosis
- Service planning and resource identification
- The linking of clients to needed services
- Service implementation and coordination
- The monitoring of service delivery
- Advocacy
- Evaluation

When a blood lead result is $\geq$ 5 ug/dL, education on what lead is, sources of lead and how to minimize exposure should be provided to the family. Follow-up interventions should be initiated for every child and pregnant woman having a confirmed EBLL of $\geq$ 5 ug/dL. Children and pregnant women with EBLLs become "**health department patients**" when an EBLL is identified through LHD screening or are referred by the primary care physician, even if they are or have been receiving direct clinical services elsewhere. They will remain a health department patient until case closure.

Until an electronic system is established, report forms are used to coordinate communication between the LHD lead case managers and KYCLPPP to ensure EBLLs receive appropriate and timely care. KYCLPPP monitors incoming lab data and compares with incoming LHD EBLL reports. Appropriate follow-up interventions need to be dated when completed. A physical address must be included to enter the data into the state data system.

The KYCLPPP Follow-Up Intervention Report form must be filled out completely for all children and pregnant women having a confirmed EBLL of $\geq$ 5µg/dL. The original report form is to be placed in the patient's chart and a copy should be faxed to KYCLPPP. Updates on EBLLs and interventions should be made on the back of the form and a copy faxed to KYCLPPP. Staff should write the current BLL and **date of specimen collection** clearly on the notes page.

ENVIRONMENTAL MANAGEMENT FOR EBLL PATIENTS

Visual Investigative Home Visits

Environmental Management through home visits is one component of the ongoing process related to the elimination of lead poisoning as a public health problem.
Environmental intervention through visual investigation:

- Help the family visually identify potential lead hazards in the child's environment
- Provide the family with educational materials/recommendations in an effort to reduce lead hazard exposure and help guide the family in taking corrective action
- Work to reduce patient's EBLL to less than 5 µg/dL by reducing/eliminating lead exposure
- Ensure that EBLL patient's receive timely and appropriate care.

Certified Risk Assessment/Lead Inspections

According to KRS 211.905, for confirmed BLLs ≥ 15µg/dL, an inspection (with sampling) of the property where an EBLL child seventy-two (72) months of age or younger routinely spends more than six hours per week must be completed to determine the existence of lead-based hazards.

Priority of this inspection should be given to the child's primary place of residence. The environmental investigations may include the visual investigative home visit as well as the comprehensive lead hazard risk assessment/lead inspection (certified risk assessment) to determine the existence of lead based hazards. (Only persons certified in Kentucky can complete the environmental lead risk assessment).

Collaboration of the environmentalist and the lead case manager ensures appropriate and timely environmental intervention for EBLL clients. Interventions during environmental investigations include:

- Informing the patient/parent/guardian/caregiver of child's EBLL; review level of understanding; monitoring of blood lead levels,
- Reviewing what lead poisoning is and common sources of lead and provide a review of lead poisoning preventive educational materials;
- Reviewing lead poisoning prevention (increase Calcium, Iron and Vitamin C, low-fat diet, house cleaning techniques, minimizing the child's exposure);
- Reviewing patient's physical status, including behavior problems/changes, nutritional status and specific habits such as placing fingers in mouth or eating dirt or paint chips;
- Establishing who is providing patient's primary and acute health care;
- Visualize the patient's home environment and child's play areas to help the family identify potential sources of lead and discuss preventive strategies to reduce the patient's lead hazard exposure;
- Ensure the well-being of the child by referring to appropriate agencies; services may include social services for emergency or temporary housing agencies and community partners to help correct potential lead health hazards.

Environmental intervention is initiated for all cases referred into or already receiving services in a health department clinic with a confirmed EBLL ≥ 5µg/dL and for pregnant women with a BLL of 10 µg/dL or greater.

Upon receipt of confirmed EBLL results, LHD staff are responsible for collaboration and referrals to the environmentalist for the appropriate environmental intervention. For children identified as having BLLs of:

- ≥5 µg/dL, a Visual Investigative Home Visit is to be completed at the patient's primary residence to help families in visually identifying potential sources of lead-based health hazard exposure.
- ≥ 15µg/dL: In addition to the visual investigative home visit, a referral should be made to the environmentalist to ensure a lead hazard inspection/risk assessment with sampling is completed by a certified risk assessor.

Investigation of the Primary Address:

Part I of the visual investigative home visit form should be initiated by LHD lead case or home visiting staff. This equips the environmentalist with information in best identifying potential sources of current and past lead hazard exposure. Investigations should be conducted within the appropriate timeframes according to CDC's recommendations. (See Table 1). However, KYCLPPP recommends a timeframe of **30 days or sooner** for BLLs 5-14.9ug/dL. Early intervention helps families in identifying potential lead hazard sources, ways on minimizing exposure and in providing a review of lead poisoning preventive education with the parent/guardian/caregiver. This works to ensure prevention of further lead hazard exposure and further elevation of the BLL.

Table 1: Time Frames for Environmental Investigation

Blood Lead Level	Time Frame for Assessment
5-14.9ug/dL	30 days for confirmed BLL in this range
15-19.9 µg/dL	2 weeks; & refer for comprehensive lead risk assessment
20-44.9 µg/dL	1 weeks; & refer for comprehensive lead risk assessment
45-69.9 µg/dL	48 hours; & refer for comprehensive lead risk assessment
≥70 µg/dL	24 hours; & refer for comprehensive lead risk assessment

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; 2002:36

A thorough visual investigation of the child's home helps families to identify possible sources of lead. The investigation should visualize both the interior and exterior environment of the child with attention given to those areas that are **child accessible,** painted surfaces, dust and soil. Other potential sources of lead should be considered during the assessment (i.e., water, family occupation, hobbies, etc.) (See *Lead Poisoning Verbal Risk Assessment* for a list of common sources http://chfs.ky.gov/NR/rdonlyres/894A7D46-2E98-4CA6-B30E-4BE48B465FF7/0/LEADPoisoningVerbalRiskAssessmentQuestionnaireJUNE2016.pdf).

At the time of the Visual Investigative Home Visit, preventive education should be reviewed with the parents/guardians/caregiver. **Preventive education** includes discussing the child's potential source(s) of lead hazards, how to prevent the patient's access and further exposure to those sources, an increase in the child's hand washing with soap and water (especially prior to eating/snacking and sleep times), and house cleaning techniques such as damp dusting, wet mopping, and daily vacuuming of the home. Temporary measures to reduce further exposure are not required within a specific timeframe, however it is recommended to immediately keep the child from accessing potential lead hazard sources.

If the child's BLL should increase to a confirmed elevated blood lead level of ≥ 15ug/dL), a lead inspection/risk assessment (certified risk assessment) is required to identify child-accessible lead-based hazards. The case should be referred to the environmentalist.

If there are suspected or identified lead hazards, intervention should include educating the family on how to use temporary measures to prevent child access to the sources. Temporary measures may include but are not limited to:

- Blocking child access to potential hazardous area with a barrier (i.e. door, child gate, furniture
- Use of duct or masking tape and plastic or cardboard to cover an area of chipping/peeling surface until permanent work can be conducted;
- Daily damp dust, wet mop and vacuum with a HEPA vacuum especially in the child's play area;
- Wipe child's toys clean, keep toys in clean, dry tote, and placing tote in cleaned play area and limiting the child's play to only this area (especially if child is crawling and/or in hand-to-mouth exploration stage);
- Keep child's hands washed with soap and water (germ gel does not remove lead), wash hands before snacks and meals and before any sleep times, nap or bedtime (especially if child is crawling and/or in hand-to-mouth exploration stage);
- Leaving shoes outside or placing shoes in a tote or shelf out of the child's reach to keep lead dust/paint chips from being tracked in from outside.
- Exploring the possibility to relocate children and pregnant women from the home while renovation/remediation work is in progress.
- Ensure the family is using lead safety work practices during renovations, providing containment areas (walk off areas, plastic off door areas, remove shoes/clothing before entering living spaces, daily clean up and vacuuming of work and walk off areas). Brochures on renovation can be found and ordered at: http://www2.epa.gov/lead/brochures-and-posters.

If the BLL remains elevated and is not decreasing within 8-12 weeks, environmental intervention may need to be conducted at another property where the child routinely spends more than six hours per week.

Follow-Up Home Visits

Follow-up home visits ensure preventive measures for lead poisoning prevention are continuing. Follow-up home visits are also indicated when:

a. child fails to return for blood lead monitoring
b. blood lead levels remain elevated
c. blood lead levels are increasing
d. at any other time the case manager feels a home visit would be beneficial

Assessment	Interventions
Family's verbal understanding of lead poisoning and prevention	Reinforce previous health education
Home environment: determine whether temporary measures are continuing.	Reinforce previous recommendations. Provide education as indicated.
Determine whether permanent measures have occurred/are planned.	Stress importance of workers using safety precautions and appropriate clean-up procedures during abatement. Encourage pregnant women and children to be kept away from work areas. While extensive work is being done, it is preferable to move the family out of the home.

CASE CLOSURE

Case closure is determined according to the case's highest confirmed blood level and can be closed as follows:

- For BLLs 5-14.9 µg/dL – Case closure occurs when BLL is less than 5 µg/dL, repeat at-risk blood testing as indicated.
- For BLLs 15µg/dL and greater– Case closure occurs when BLL is less than 5 µg/dL for at least six months, environmental hazards have been addressed; there are no new environmental hazards or as ordered by the physician.

For prenatal EBLLs, case closure occurs at the pregnant woman at the time of the delivery of the newborn. **If the prenatal patient's BLL is ≥ 25 µg/dL**, the mother will need to follow-up with their PCP. The newborn will need to be tested at delivery using a **cord blood sample.** Case Management follow-up should be initiated for newborns with BLLs ≥ 5µg/dL.

A case may also be designated as ***administrative closure*** if all directives, as enumerated in the "Follow-up/Internal Tracking/Referral" section, have been completed. The case manager must follow and document all procedures for closure in a "lost to follow up" case closure.

Cases where all directives have been completed and there has been no contact or follow-up appointment completed by the patient or child's family, the case will need to be referred to Department for Community Based Services (DCBS) to ensure medical follow-up. Please see Administrative Reference (AR) Volume I, Abuse, Neglect and Violence section/ Department for Community Based Services.

When a case is closed to follow-up, please provide the date, reason for case closure, and any actions/interventions or comments on the case report form in area provided. If a case has been closed and a new EBLL is identified, please open a new case and send a new Report Form with initial BLL and updated information. Please do not continue on old file and write reopened.

KYCLPPP forms available @ http://chfs.ky.gov/dph/CCSG_Forms.htm. Forms should be filed in the patient's chart and a copy is to be faxed to KYCLPPP :(502) 564-5766

Sources/ Manuals:

1. *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*. (CDC, 1997)
2. *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention*. (CDC, 2002)
3. *CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention (ACLPPP): Recommendations in "Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention" (CDC, 2012).*

Resources:

Centers for Disease Control and Prevention: https://www.cdc.gov/nceh/lead/

- CDC. Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women [PDF - 4.24 MB](http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf) (2010)
- Centers for Disease Control and Protection (CDC). Preventing Lead Poisoning in Young Children [PDF - 2.59 (http://www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf) (2005)

Environmental Protection Agency: www.epa.gov/lead

- EPA. Lead Poisoning and Your Children (http://www2.epa.gov/sites/production/files/documents/lpandyce.pdf) (2000)
- EPA. Fight Lead Poisoning with a Healthy Diet. (http://www2.epa.gov/lead/fight-lead-poisoning-healthy-diet) (2001)
- EPA. Renovate Right (http://www2.epa.gov/lead/renovate-right-important-lead-hazard-information-families-child-care-providers-and-schools) (2011)
- EPA. Steps to Lead Safe Renovation, Repair and Painting (http://www2.epa.gov/lead/steps-lead-safe-renovation-repair-and-painting-october-2011) (2011)
- EPA. Protect Your Family from Lead in Your Home (http://www2.epa.gov/lead/protect-your-family-lead-your-home-real-estate-disclosure) (2013)
- EPA. Lead Poisoning Home Checklist (http://www2.epa.gov/sites/production/files/documents/parent_checklist3.pdf) (2014)