Lead Screening and Case Follow-up Guidelines for Local Health Departments

March 2011
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DEFINITION OF TERMS

In this document, the following terminology is used:

**Abatement**  Removal or encapsulation of all lead-bearing substances in a residence or dwelling

**Assessment**  Administration of the risk questionnaire to the parent by a health care provider

**BAL**  Medication used in lead poisoning; generic name Dimercaprol

**BLL**  Blood lead level

**Case Management/Case Follow-up**  Involves coordinating, providing and overseeing the services required to reduce BLLs below the level of concern (i.e. 10 µg/dL)

**CBC**  Complete blood count

**CDC**  U.S. Centers for Disease Control and Prevention

**Confirmatory**  Refers to a venous blood test. This is required to open a case in the Illinois Lead Program data system and subsequently to schedule all case management activities

**Cornerstone**  State data management system that tracks women and children receiving WIC, Family Case Management and Immunization services at local health departments and federally-qualified health centers

**DCFS**  Illinois Department of Children and Family Services

**Department**  Illinois Department of Public Health

**HFS**  Illinois Department of Healthcare and Family Services (formerly known as Public Aid)

**High-risk ZIP Code Area**  Designated area of the state where children through 6 years of age are considered at high risk for lead exposure

**Delegate Agency**  Local health department who has a contract with the Illinois Department of Public Health to act on their behalf, providing lead assessments, testing and case management activities for children in their counties

**EBLL**  Elevated blood lead level; a blood lead level ≥10 µg/dL

**EI**  Environmental inspection

**EPSDT**  Early periodic screening, diagnosis and treatment

**FDA**  U.S. Food and Drug Administration
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>HM/HK</td>
<td>Healthy Moms/Healthy Kids</td>
</tr>
<tr>
<td>HIPPA</td>
<td>Health Insurance Portability and Accountability Act</td>
</tr>
<tr>
<td>ILP</td>
<td>Illinois Lead Program</td>
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<tr>
<td>International Adoptee</td>
<td>A foreign born minor entering the United States under the provisions of the Immigration and Nationality Act (INA) under authorized international adoption procedures</td>
</tr>
<tr>
<td>Lead Hazard</td>
<td>Means a lead-bearing substance that poses an immediate health hazard to humans</td>
</tr>
<tr>
<td>LHD</td>
<td>Local health department</td>
</tr>
<tr>
<td>Low-risk ZIP Code Area</td>
<td>Designated area of the state where children through 6 years of age are considered at low risk for lead exposure</td>
</tr>
<tr>
<td>MCHPC</td>
<td>Maternal/child health primary care</td>
</tr>
<tr>
<td>Medical Evaluation</td>
<td>An assessment of a patient for the purpose of forming a diagnosis and plan of treatment</td>
</tr>
<tr>
<td>Oral Behavior</td>
<td>The behavior of putting items in the mouth such as toys</td>
</tr>
<tr>
<td>PCP</td>
<td>Primary care physician</td>
</tr>
<tr>
<td>PHN</td>
<td>Public health nurse</td>
</tr>
<tr>
<td>Pica</td>
<td>Eating non-food substances</td>
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<tr>
<td>Refugee</td>
<td>Any person who is outside any country of such person’s nationality or, in the case of a person having no nationality, is outside any country in which such person last habitually resided, and who is unable or unwilling to return to, and is unable or unwilling to avail himself or herself of the protection of, that country because of persecution or a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion. (Section 101 (a) (42) of the Immigration and Nationality Act as amended by the Refugee Act of 1980)</td>
</tr>
<tr>
<td>Remediation</td>
<td>Correction of a lead hazard so that any lead-bearing substance does not pose an immediate health risk to humans</td>
</tr>
<tr>
<td>Screening</td>
<td>Refers to initial blood lead testing by venous or capillary methodology</td>
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<tr>
<td>Succimer</td>
<td>Chelating agent used in treating lead poisoning</td>
</tr>
<tr>
<td>Testing</td>
<td>A blood lead draw</td>
</tr>
<tr>
<td>WIC</td>
<td>Women, Infants and Children Nutrition Program offered by most local health departments</td>
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INTRODUCTION

This revised document was developed by the Illinois Department of Public Health (Department) with assistance from the Illinois Childhood Lead Poisoning Elimination Advisory Council for the Illinois Lead Program. The revised guidelines provide the following information:

- Federal standards determining blood lead level of concern
- Current U.S. Centers for Disease Control recommendations
- State laws on testing
- Case management and follow-up of children with elevated blood lead levels
- Medical management of children with elevated blood lead levels
- Health education and outreach

FEDERAL STANDARDS DETERMINING BLOOD LEAD LEVEL OF CONCERN

Lead poisoning, with its negative impact on young children, is a public health problem of continuing importance. Current research indicates that adverse outcomes may occur at less than or equal to 10 \( \mu g/dL \). As an understanding of the harmful effects of lead continues to evolve, public health advocates have pushed for crucial legislation to reduce lead exposure. Legislation has decreased the amount of lead in gasoline, new paint, metal solder, and plumbing components. As a result, fewer children suffer from lead encephalopathy. However, a great deal of leaded paint still exists in older housing. Each year thousands of children continue to be exposed to lower doses of lead that can result in subtle but serious health problems. In fact, 75 percent of all homes built in the United States before 1978 have lead-based paint in them.

In Illinois, more than 300,000 blood lead screenings are provided annually by local health departments, private physicians and other health service providers. Data from the Department’s 2009 Childhood Lead Poisoning Surveillance Report identified 3,720 children with lead levels greater than or equal to 10 \( \mu g/dL \).

Research has determined that lead poisoning is not equally distributed among children in the United States. BLLs requiring individual follow-up is low in some populations and geographic locations. High-risk populations include those residing in older homes, children in low-income families, African-American children and immigrants. However, sources of lead for children continue to emerge (e.g., children’s jewelry, imported food products) and these are not limited to high-risk populations. Community services, such as health fairs and day care screenings, can be used by cities and towns with high-risk populations to identify children with EBLLs. Individuals serving low-risk areas also are encouraged to plan activities to increase public awareness of lead poisoning.

See Definition of High and Low-risk ZIP Codes Childhood Lead Poisoning in Appendix A.
Many children throughout the United States are exposed to lead. Lead is a toxic chemical; no safe level of lead in the body has been able to be determined. Childhood lead poisoning is a preventable pediatric health problem. Children are particularly susceptible to lead's toxic effects. Because evidence shows adverse effects at low blood lead levels (BLL), the U.S. Centers for Disease Control and Prevention (CDC) has changed the definition of lead poisoning. A BLL greater than or equal to 10 µg/dL is considered lead poisoning.

Refugee Children

Illinois is experiencing an increase in the number of lead poisoned refugee children. The main issue is rapidly rising BLLs after resettlement into housing built prior to 1978.

A case manager works to decrease the child's BLL and to identify and eliminate lead hazards in the child's environment. Ninety percent of case management activities are conducted by a nurse or social worker. The case manager is usually a member of the local health department staff. A refugee health coordinator should work with the assigned case manager to help facilitate and assure case management activities are being conducted.

Assuring that a child has an initial blood lead test within the 90 days of arrival into the United States is essential to begin providing treatment for that child if necessary. This will require working closely with your Regional Resettlement Agency.

A repeat blood lead test should be performed three to six months after refugee children are placed in their permanent residence. The repeat blood lead test should be considered a "medical necessity" regardless of the result from the first test.

The repeat blood lead test is extremely important in identifying EBLLs in newly resettled refugee children. Scientific evidence demonstrated that although some children had EBLLs when they arrived in the United States, the majority of the children did not. Thus, the lead exposure occurred in the United States.

The final strategy to reduce the risk of lead exposure in refugee children consists of providing lead poisoning prevention education to refugee families.

Lead poisoning prevention education is directed at helping parents prevent and/or reduce residential lead exposure in children and other sources of lead. Lead poisoning prevention education should be provided to families educating them on routine medical care, proper nutrition, and house cleaning strategies.

Medical Management Assurance of refugee children as prescribed by CDC includes:

- Nutritional evaluation
- Initial blood lead test
- Repeat blood lead test
- Education
Identification of Children With EBLLs

1. BLL testing of all refugee children 6 months to 16 years of age at entry to the United States.
   - Federal standards stipulate that a refugee medical screening take place within 90 days after a refugee's arrival in the United States. The content of the screenings vary from state to state. Childhood lead poisoning prevention programs report that most states do not have BLL screening protocol for refugee children and that lead program surveillance data cannot identify which children are refugees.
   - Studies indicate that age is not a significant risk factor for EBLLs among refugee children. Although the risk for lead exposure among children older than 6 years 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 United States, thus suggesting the value of screening all refugee children at time of arrival.

2. Repeat BLL testing of all refugee children 6 months through 6 years three to six months after refugee children are placed in permanent residences and older children, if warranted, regardless of initial test results.
   - 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.
   - The New Hampshire cases study demonstrates that although some children had elevated BLLs when they arrived in the United States, the majority of the children did not. The follow-up screening which was conducted on average 60 to 980 days after the placement of the children in the state and in their permanent residence, revealed elevated BLLs that ranged from 11 to 72 µg/dL.
   - The refugee status for most of the children entitles them to Medicaid, WIC, and other social services for at least eight months after their resettlement, regardless of family financial status.

Early Post-arrival Evaluation and Therapy

1. Upon U.S. arrival, all refugee children should have nutritional evaluations performed, and should be provided with appropriate nutritional and vitamin supplements as indicated.
   - 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.
   - 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; transferring saturation; or reticulocyte hemoglobin content.

2. 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.
**International Adoptee**

Physicians and/or local health departments should ensure that children age 6 and younger, who have been adopted from a foreign country, have received an initial blood lead test upon entering the United States and again three months later. Follow local guidelines for case follow-up as indicated above for refugee children.

**Health Education/Outreach**

1. CDC and its state and local partners should develop health education and outreach activities that are culturally appropriate and sensitive to the target population.

2. CDC and its state and local partners should develop training and education modules for health care providers, refugee and resettlement case workers, and partner agencies (e.g., WIC) on the following:
   - Effects of lead poisoning among children
   - Lead sources in children’s environments and ways to reduce the risk of exposure
   - Nutritional and developmental interventions that can mitigate the effects of lead exposure
   - Ways to provide comprehensive services to children with elevated BLLs

The race and ethnicity of refugee populations will vary based on locality and world events. The CDC has developed a health education resource database that links users to health education materials from across the nation. For example, users may search the database for lead poisoning prevention materials in a specific language. Please visit http://www.cdc.gov/nceh/lead to view the latest version of the health education database.

**Therapy for Pregnant Women With EBLLs**

National surveys indicate that 0.3 percent of U.S. women of child-bearing age have a BLL greater than or equal to 10 µg/dL. At present, there is insufficient clinical knowledge or experience with any chelating regimen(s) to recommend chelation therapy for pregnant women who have an EBLL. Advice from experts should be sought if a pregnant woman is identified with an EBLL.

Pregnant women who have BLLs greater than or equal to 10 µg/dL should receive environmental assessments to identify and eradicate sources of excessive lead exposure. Education on preventing further exposure, housekeeping and good nutrition particularly related to stopping the ingestion of non-food substances that contain lead should be provided.

**Breastfeeding Women With EBLL**

Recent studies indicate that there is little transfer of lead to the infant in breast milk. According to a book published in 2005, by Ruth A. Lawrence M.D. and R.M. Lawrence, titled “Breastfeeding; A Guide for the Medical Profession,” Sixth Edition, St. Louis: Elsevier/C.V. Mosby, 2005, if the BLL is less than 40 µg/dL, it is considered safe to breastfeed.

**Newborn of a Lead-bearing Mother**

If a child is born to a woman with known EBLL, the BLL of the newborn should be monitored closely. An infant’s BLL is expected to be equal to that of the mother. If the BLL of the infant is greater than or equal to 10 µg/dL, appropriate case management activities should take place.
The Illinois Lead Poisoning Prevention Act was signed into law in Illinois on September 6, 1973. It made lead poisoning and elevated blood-lead levels reportable, prohibited the use of lead-bearing paint in dwellings, gave the Department the authority to inspect dwellings for lead-bearing substances, and required owners of such dwellings to eliminate any hazards.

By January 1, 1993, the Illinois Lead Poisoning Prevention Act had been amended requiring:

- Every physician licensed to practice medicine in all its branches or health care providers to perform an annual testing of children from 6 months of age through 6 years of age determined to be at high risk for lead exposure.

- Every physician licensed to practice medicine in all its branches or health care providers to perform an annual assessment of children from 6 months of age through 6 years of age determined to be residing in areas defined as low risk for lead exposure by the Department using the Department’s Lead Risk Assessment Questionnaire.

- Child care facilities to require a parent or guardian of a child 6 months through 6 years to provide a statement from a physician or health care provider as proof that a blood lead level assessment or blood lead test occurred prior to admission. Child care facilities include day care centers, day care homes, preschools, nursery schools, kindergartens and other child care facilities, licensed or approved by the state, including such programs operated by all public school districts.

The change in the law also allowed physician’s assistants in addition to physicians to make discretionary judgments regarding the testing of children 7 years of age or older.

Children 7 years to 16 years of age with a history suggestive of past or present lead exposure (developmental delays, excessive mouthing behaviors, learning disabilities or other learning problems) may be considered for assessment and potential blood lead screening. There is no documented evidence of any benefits of chelating older children.

Effective January 1, 1997, the Illinois Lead Poisoning Prevention Act was once again amended to require reports of lead poisoning as follows:

- Every physician who diagnoses, or a nurse, hospital administrator or public health officer who has verified information of the existence of any person found or suspected to have a level of lead in the blood in excess of the permissible limits set forth in regulations adopted by the Department, within 48 hours of receipt of verification, shall report to the Department the name, address, laboratory results, date of birth, and any other information about the person deemed essential by the Department.

- Directors of clinical laboratories must report to the Department, within 48 hours of receipt of verification, positive results of all blood lead analyses performed in their facility. The information included in the clinical laboratories report shall include, but not be limited to, the child’s name, address, date of birth, name of physician ordering analysis, and specimen type.
• **All negative results must be reported** to the Department in accordance with rules adopted by the Department. These rules shall not require reporting in less than 30 days after the end of the month in which the negative results are obtained.

Note: This includes reporting all venous and finger stick screening, diagnostic, and follow-up tests.

In 2006, the Illinois Lead Poisoning Prevention Act was amended to initiate environmental investigations of homes of lead poisoned children ages 3 years and younger at blood lead levels greater than or equal to 10 micrograms per deciliter.

A federal law mandates that children receiving Medicaid or All Kids assistance **must be tested** at 12 months and again at 24 months of age. If a child receiving Medicaid or All Kids assistance is 3 years old through 6 years old and has not been tested, a **blood lead test is required**.

**CASE MANAGEMENT AND FOLLOW-UP ACTIVITIES OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS**

**DELEGATE AGENCY RESPONSIBILITIES**

Local health departments contract with the Illinois Department of Public Health to serve as delegate agencies. These agencies provide or coordinate these services for **all children residing in their geographical boundaries**:

- Assessments and testing
- Case management and social service referrals
- Medical evaluation
- Environmental investigation or referrals for environmental investigation
- Education and outreach

| **Section 845.80 of the Illinois Lead Poisoning Prevention Code** requires delegate agencies to conduct interviews with the parent/guardian of a child with an elevated blood lead level or attending physician as needed to assure the accuracy and completeness of reports and to perform case follow-up activities for confirmed blood lead levels greater than or equal to 15 µg/dL. |

**Parental Consent Forms and Counseling**

Prior to lead testing, health department staff should obtain a signed parental consent form according to their agency policies and protocol. See Appendix B for a sample of a County Health Department consent.

All HIPAA guidelines must be followed when making referrals or releasing information to other agencies or health care providers. See Appendix C for Request for Information.

Each delegate agency is directed, under their contract with the Department, to develop a policy for agency procedures for lead poisoning case management protocol to include home visit consent and release of information. See Section 845.APPENDIX B *Information Agreement* of the Illinois Lead Poisoning Prevention Code.
Assessment and Testing

The Department has determined high-risk and low-risk ZIP code areas for Illinois, based on age of housing stock, prevalence rate of EBLLs, and poverty level. ZIP codes identified as high-risk are listed in Appendices D and E. Please note that all Chicago ZIP codes are high risk. Based on the ZIP code of a child’s residence and participation in public assistance programs, the appropriate assessment or testing strategy, as discussed below MUST be applied. Additionally, all children age 6 and younger with a sibling having an EBLL should have a blood lead test. See Appendix F.

Children Eligible for Assistance Provided by Illinois Healthcare and Family Services:

• In all areas of the state, children eligible for Medicaid or All Kids assistance ARE REQUIRED to have a blood lead test at 1 and 2 years of age even if they live in a low-risk ZIP code area. If a child is 3 through 6 years old and has not been tested, a blood lead test is required.

• Complete a Childhood Lead Risk Assessment Questionnaire (See Appendix G).
• Assess children through 6 years of age, beginning at 12 months.
• If responses to all the questions are “NO,” re-evaluate at next scheduled well child visit.
• If any response is “YES” or “DON’T KNOW,” obtain a blood lead test.
• Consider evaluating children before 12 months of age, depending on the area.
• If the child is 1) age 3 to 6 years and 2) has had two successive blood lead test results that are each less than 10 µg/dL with one of these tests at age 2 years or older and 3) risks of exposure to lead have not changed, further blood lead tests are not necessary.
• If the child is 3 to 6 years of age and risks of exposures to lead have increased, obtain a blood lead test.
• Continue to assess at well child visits through age 6.

For Children Living in Chicago:

• Lead screening guidelines for the city of Chicago are available at the Chicago Department of Public Health’s Web site at www.cityofchicago.org/health. Click on Childhood Lead Poisoning Prevention and then access Lead Poisoning Prevention for Health Care Providers.

Case Management and Social Service Referrals

1) Trace the case

The delegate agency is responsible for:

• Locating the case and interviewing the parent or guardian to obtain the required information and making the appropriate referrals, including but not limited to, nutrition counseling, iron deficiency testing, WIC services and developmental screening.
• Making a referral for primary care to a physician or other health care provider if indicated.

The interview must be performed by a public health nurse or under the supervision of a public health nurse. Lead poisoning prevention service for clients of private practitioners require coordination of care to obtain the necessary medical record to adequately trace the case and intervene for the child.
2) **Educate the parent or guardian of the case**

The public health nurse or health educator must inform the family of the BLL result and counsel the parent or guardian on the need for confirmatory and/or subsequent blood lead tests. The public health nurse also should:

- Provide the parent or guardian with information about lead poisoning, including its effects on young children
- Discuss nutrition, good hygiene practices and housekeeping tips
- Provide information about lead sources
- Inquire about lead sources in the child’s environment
- Discuss ways to mitigate these hazards
- Develop strategies to decrease both lead exposure and prevent further elevation of the child’s lead levels
- Refer to the appropriate environmental person for information on appropriate techniques for remodeling or renovating older houses or facilities
- Conduct a home visit, when recommended

The home visit and assessment must be performed by or under the supervision of a public health nurse. See sample of Anticipatory Guidance at Appendix H. Free handouts for parents are available through the Department’s Web site at www.idph.state.il.us or by contacting the Department at 217-782-3517.

### Public Health Home Visit and Environmental Health and Lead Assessment

The specific purposes of the home visit are to:

- Provide the parent(s) or guardian(s) with information regarding the child’s status
- Assess the condition of the child, as well as the condition of his/her environment
- Assess the child’s nutritional status and provide counseling
- Instruct the parent(s) or guardians(s) as to follow-up procedures and to set up specific appointments as needed
- Initiate appropriate referral to a physician
- Initiate referral for environmental investigation
- Initiate social service referrals
- Provide information on hazard reduction
- Evaluate if proper action by parent(s) or guardian(s) has been taken

The Public Health Home Visit for Environmental Health and Lead Assessment form should be completed during the home visit. The environmental inspector and the child’s physician should receive copies of the completed form. Refer to Appendix I.

A Nurse Care Plan is recommended to raise awareness of a healthy homes approach to provide the parent/guardian assistance in understanding the instructions given regarding prevention actions of home hazards and positive actions regarding needed caregiver support. This will reflect nurse home visit activities and intervention for the children with EBLs and potentially at risk children. The Nurse Care Plan will help improve documentation of case management services. All DAs are encouraged to use the Department’s template when possible. Refer to last page of Appendix I.
3) **Provide case management appropriate for the BLL**

**At confirmed blood lead levels 5 to 9 µg/dL.** Blood lead levels in this range would indicate there is a risk of exposure to lead in the child’s environment. Inform parent or guardian of the blood lead result to emphasize the importance of follow-up screening to make sure the levels do not increase. Parents should receive counseling and educational materials regarding nutrition and housekeeping recommendations.

**At confirmed blood lead levels 10 to 14 µg/dL.** Case management begins at 10 µg/dL on all children younger than 84 months of age. Children with blood lead levels in this range may be at risk for a decrease in IQ and other subtle effects significant enough that the case manager should emphasize to the parent or guardian the importance of follow-up screening to make sure the levels do not increase. Parents should receive notification of their child’s blood lead level, the “Get the Lead Out – Intervention” brochure and education to prevent further exposure.

**For children younger than 36 months of age:**
- Refer for an environmental investigation.
- Refer to physician within one week.
- A nurse home visit including developmental screening and coordination of care is recommended.

**At confirmed blood lead levels 15 to 19 µg/dL.** Children with venous blood lead levels 15 µg/dL to 19 µg/dL need more careful follow-up. A nurse home visit is required to interview the parent or guardian of the case for purposes of collecting, verifying or completing the required surveillance information. A Public Health Home Visit Form for Environmental Health and Lead Assessment (see Appendix I) should be completed and referrals for medical management, environmental investigation, developmental screening, hearing screening, nutrition and prevention counseling should be made. Refer to physician within two weeks. The family should be given educational brochures from the “Get the Lead Out” series. If the blood lead level persists in the 15 µg/dL to 19 µg/dL range for a six-month period, then an environmental investigation and individual case follow-up should be implemented.

**At confirmed blood lead levels 20 to 44 µg/dL.** An environmental investigation is required to reduce lead hazards and case follow-up should be conducted as quickly as possible. Parents should receive education regarding lead poisoning that includes information about: 1) the causes and effects of lead poisoning; 2) the need for more routine blood lead testing; 3) possible sources of lead intake and means of reducing intake; 4) nutrition, emphasizing the need for adequate nutrition, i.e. iron and calcium; and 5) resources for further information. Refer to physician within one week. The local childhood lead poisoning prevention program will often work as a team with the pediatrician/physician and the child’s family to ensure appropriate follow-up. Case follow-up should also ensure that sequential testing for blood lead along with review of the child’s clinical status are done monthly or as indicated.

**At confirmed blood lead levels 45 to 69 µg/dL.** Children with confirmed venous blood lead levels of 45 µg/dL to 69 µg/dL require faster action. Case follow-up and referral for environmental investigation should begin within 48 hours and should include the same components as listed for children with levels of 20 µg/dL to 44 µg/dL. The homes of these children must be remediated before they are allowed to return. Children whose blood leads reach this level may be placed on chelation therapy. Some children receiving chelation therapy, with or without hospitalization, need more intense case management to monitor compliance and follow-up blood
lead testing. Increased communication with the physician, hospital social worker and, possibly, home health agency will be necessary.

**At confirmed blood lead levels greater than or equal to 70 µg/dL.** Children with confirmed blood lead levels at or greater than 70 µg/dL constitute a medical emergency and must be hospitalized immediately. They are at highest risk for severe, permanent neurologic damage due to lead exposure and must be given highest priority for follow-up. Case follow-up and environmental investigation should be started within 24 hours and should include the child’s home and potential sites of exposure, such as a relative’s home or a day care center. The homes of these children must be remediated before they are allowed to return. The case follow-up and environmental inspection should include the same components as listed previously.

**Confirmatory Testing Schedule:**

Children with **elevated capillary tests** should have follow-up confirmatory venous testing consistent with the schedule below. The need for additional testing is based on assessment and follow-up test results.

**Follow-up confirmatory venous testing for capillary BLL greater than or equal to 10 µg/dL:**

<table>
<thead>
<tr>
<th>If capillary result is:</th>
<th>Perform a confirmatory venous test in:</th>
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<tbody>
<tr>
<td>10 – 19 µg/dL</td>
<td>1 – 3 months</td>
</tr>
<tr>
<td>20 – 44 µg/dL</td>
<td>1 week – 1 month</td>
</tr>
<tr>
<td>45 – 59 µg/dL</td>
<td>48 hours</td>
</tr>
<tr>
<td>60 – 69 µg/dL</td>
<td>24 hours</td>
</tr>
<tr>
<td>70 µg/dL or above</td>
<td>Immediately as an emergency lab test</td>
</tr>
</tbody>
</table>

If there is reason to believe the BLL may be increasing rapidly or if the child is younger than 1 year of age, consideration should be given to repeating the blood lead test sooner than indicated above. Testing more frequently than annually should be considered for children younger than 2 years of age, and thus likely to have a BLL on the rise, and those screened in winter or spring, and thus likely to have lower exposures to outdoor environmental lead hazards.

**If a follow-up blood test is not obtained until six months or more after the initial blood test,** it should be treated as a new test. Subsequent decisions about the need for follow-up testing should be based on the result of the new test and not the original one.
Follow-up Venous Blood Lead Testing:

Medical management includes follow-up blood lead testing. The following table below suggests frequency of follow-up tests. Case managers should consider individual patient characteristics and caregiver capabilities and adjust the frequency of follow-up tests accordingly.

Schedule for Follow-up Blood Lead Testing

<table>
<thead>
<tr>
<th>Venous blood lead</th>
<th>Early follow-up (first 2 – 4 tests after identification)</th>
<th>Late follow-up (after BLL begins to decline)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14 µg/dL</td>
<td>3 months</td>
<td>6 – 9 months</td>
</tr>
<tr>
<td>15-19 µg/dL</td>
<td>1 – 3 months</td>
<td>3 – 6 months</td>
</tr>
<tr>
<td>20-24 µg/dL</td>
<td>1 – 3 months</td>
<td>1 – 3 months</td>
</tr>
<tr>
<td>25-44 µg/dL</td>
<td>2 weeks – 1 month</td>
<td>1 month</td>
</tr>
<tr>
<td>≥ 45 µg/dL</td>
<td>As soon as possible</td>
<td>Chelation with subsequent follow-up</td>
</tr>
</tbody>
</table>

4) Refer the parent or guardian of the case for medical management when appropriate.

The *Preventing and Screening for Childhood Lead Poisoning – A Reference Guide for Physicians and Health Care Providers* and the American Academy of Pediatrics guidelines should be used to determine when it is appropriate to refer a child’s parent or guardian to a physician for medical treatment.

5) Refer for environmental inspection (Also see Section 845.85 of the Lead Poisoning Prevention Code, December 2008.) After notification that a child who is an occupant or frequent inhabitant of a dwelling, child care facility or residential building has an elevated blood lead level, a representative of the Department or delegate agency should inspect the dwelling, residential building or child care facility to determine the source of lead poisoning. Delegate agencies that lack environmental staff should refer cases to the nearest Department regional office or to the Department’s Division of Environmental Health at 217-782-3517. Referrals for environmental inspections should be made using the Department’s data management reporting system. Any instances where test results were not imported via the Department’s data management reporting system should be referred to the Department’s Division of Environmental Health.

Environmental inspection and follow-up shall be conducted in the following situations:

1. A child with a confirmed blood lead level at or about 20 µg/dL
2. A child has three successive confirmed blood lead levels of 15 – 19 µg/dL with no time requirement between tests
3. A child has a single confirmed blood lead level at or above 10 µg/dL and the child’s physician requests an investigation to determine whether the child should be removed from the regulated facility because of the lead hazard
4. If a child younger than 3 years of age has a single confirmed blood lead level at or above 10 µg/dL
5. If mitigation notices are issued for two or more dwelling units in a building within a five-year time period, the Department may inspect common areas in the building and shall inspect units where children younger than the age of 6 reside, at the request of a parent of guardian of the child, or a pregnant woman resides, at the pregnant woman’s request.

Environmental inspections should be prioritized for inspection according to the severity of the blood lead level, the age of the child (younger children over older children), number of children in the household, previous blood lead history, etc.

**Opening Case With Capillary Tests**

If two capillary draws greater than or equal to 15 µg/dL occur in a 90-day period, the agency should consider initiating services for the child. If there are questions on the appropriateness of opening a case, consult the regional nurse consultant to determine the proper action to be taken.
## Time Frames for Case Management and Environmental Investigation

**Based on the Follow-up Venous Test**

<table>
<thead>
<tr>
<th>Blood Lead Level</th>
<th>Actions for children &lt;36 months</th>
<th>Action for children ≥36 months</th>
<th>Time frame for initiation</th>
</tr>
</thead>
</table>
| 0 – 9 µg/dL      | 1) Inform parent by letter of blood lead result.  
                     2) If the BLL is 5-9 µg/dL consider repeating the BLL sooner than annually, depending on age of child and season of testing.  
                     3) Education is recommended.  | 1) Inform parent by letter of blood lead result.  
                     2) Education is recommended.  |                           |
| 10 – 14 µg/dL   | 1) Take a careful history to determine obvious sources of lead that must be addressed.  
                     2) Conduct nurse home visit including developmental screening.  
                     3) Provide coordination of care (case management).  
                     4) Repeat BLL in three to six months, until the child has had at least two BLLs less than 10 µg/dL, with no change in the status of housing or potential exposure.  
                     5) Refer for environmental investigation and control current lead hazards.  
                     6) Provide “Get the Lead Out” brochure series to parent/guardian.  
                     7) Refer to physician within one week.  | 1) Take a careful history to determine obvious sources of lead that must be addressed.  
                     2) Provide education and social services referrals as needed.  
                     3) Repeat BLL in three to six months, until the child has had at least two BLLs less than 10 µg/dL, with no change in the status of housing or potential exposure.  
                     4) Provide “Get the Lead Out” brochure series to parent/guardian.  | Within 30 days |
| 15 – 19 µg/dL   | Above actions  | Above actions, plus:  
                     1) Provide coordination of care (case management).  
                     2) Conduct developmental screening.  
                     3) A nurse home visit is conducted.  
                     4) If three consecutive blood lead test results persist in the 15 – 19 µg/dL range for a six-month period, an environmental investigation and case follow-up should occur.  
                     5) Repeat blood lead test in one to three months.  | Within two weeks |
| 20 – 44 µg/dL   | Above actions  | Above actions, plus:  
                     1) Refer to physician within one week.  
                     2) Repeat BLL monthly.  
                     3) Refer for environmental investigation and control current lead hazards.  | Within one week |
| 45 – 69 µg/dL   | Above actions  | Above actions  | Within 48 hours |
| 70 µg/dL or greater | 1) Above actions, plus:  
                     2) Child should be hospitalized for chelation therapy immediately.  | 1) Above actions, plus:  
                     2) Child should be hospitalized for chelation therapy immediately.  | Within 24 hours |
Medical Evaluation

A child with a blood lead level greater than or equal to 20 µg/dl should have a pediatric evaluation, whether or not symptoms are present. Special attention should be directed to:

- The child’s detailed history, including the presence or absence of clinical symptoms, child's mouthing activities, the existence of pica, nutritional status (especially iron and calcium intake), dietary habits, family history of lead poisoning, potential sources of lead exposure (including exposure due to home renovation), and previous blood lead measurements.

- Detailed environmental and occupational histories of adults in the household or other places the child spends a lot of time.

- The physical examination, with particular attention to the neurological examination and psychosocial and language development. A neurobehavioral assessment may be useful in children receiving chelation therapy both at the time of diagnosis and as the child approaches school age. Findings of language delay or other problems can prompt referral to appropriate programs.

- Evaluation of iron status using measurement of iron and total iron binding capacity or of ferritin.

Integration of Services in the Local Health Department

Integration of lead assessment and testing within a comprehensive primary pediatric care program is highly encouraged. Many agencies have incorporated lead management into WIC programs, immunization programs, pediatric primary care and family case management. Health Works, the health program for DCFS wards, also encourages lead assessment and testing.

Coordination of Care with Other Agencies

School Districts

School nurses and other school personnel collaborate frequently. These individuals may be the initial contact for parents about the need for lead assessment and testing. It is important to develop and maintain open lines of communication with school health personnel.

The school nurse should check that the Lead Risk Assessment Questionnaire section of the Certificate of Child Health Examination form has been completed. If not completed, the nurse should refer the parent to a health care provider or local health department for assessment, testing or administer the questionnaire herself to determine if testing is required. This is an opportune time to educate parents about the importance of lead screening. Local health departments in some counties send clinic staff to school to assist with registration. A component of back-to-school services should include lead assessment.
Illinois Department of Children and Family Services (DCFS)
Lead program staff may interact with DCFS in three situations: day care licensing, reporting of suspected medical neglect or the Health Works (HWIL) program. As stated in Section 845.15 Lead Screening of Title 77: Public Health, Part 845 Lead Poisoning Prevention Code:

By January 1, 1993, each day care center, day care home, preschool, nursery school, kindergarten, or other child care facility, licensed or approved by the state, including such programs operated by a public school district, shall include a requirement that each parent or legal guardian of a child between the ages of 6 months and 6 years provide a statement from a physician or health care provider that the child has been screened or assessed for lead poisoning. This statement shall be provided prior to admission and subsequently in conjunction with required physical examinations required by Section 665.140 of the Department’s rule entitled Child Health Examination Code (77 Ill. Adm. Code 665). (Section 7.1 of the Act).

Title 89, Chapter 3 of the DCFS requirements for licensure contains the following language under the subheading “Health and Medical Care”

The initial examination shall show that children from the ages of 1 through 6 years have been screened for lead poisoning for children residing in an area defined as high risk by the Illinois Department of Public Health in its Lead Poisoning Prevention Code (77 Ill. Adm. Code 845) or that a lead risk assessment has been completed for children residing in an area defined as low risk by the Illinois Department of Public Health.

Local health departments are encouraged to work with DCFS personnel to clarify legal questions and to promote assessment and testing. Outreach activities in the form of education programs for DCFS personnel, day care providers and parents can enhance communication.

Local health department personnel, physicians or other health care providers, when there is suspected medical neglect, may initiate contact with the family services agency. The DCFS Hotline receives calls and then forwards the information to the appropriate caseworker. It is important to give all pertinent information to the hotline personnel and the caseworker. This includes the BLL, condition of child and home environment, number of missed appointments and any other contributing information. In cases of known non-compliance with other programs (WIC, immunizations, other missed appointments), it may be helpful to consult with those programs before placing the report. This information also should be included.

Very few situations related to lead poisoning would result in the child being removed from the home. However, for some children, a report may be necessary to gain parental compliance. Consequently, adequate care and follow-up services are provided for the child.

Another interaction with DCFS may take place with Health Works clients. HWIL is a collaborative effort of the departments of Public Health, Human Services and Children and Family Services. HWIL’s purpose is to ensure that state wards (birth to age 21) in the custody of DCFS receive comprehensive, quality health care services.

New wards taken into custody should receive a comprehensive health evaluation based on EPSDT standards developed by the American Academy of Pediatrics. Blood lead testing is one of the
laboratory tests recommended by these standards. DCFS wards often fall in a high-risk group for several reasons: 1) wards tend to live in numerous locations; 2) the environmental status of wards before custody is often unknown; and 3) wards may live in high-risk areas of the state.

HWIL program staff is encouraged to work with the DCFS ward’s primary care physician, substitute care giver, and DCFS caseworker so that children aged 6 years or younger receive a lead poisoning assessment and testing. HWIL staff should assist with lead poisoning education efforts for DCFS caseworkers and the substitute caregiver if needed.

**Community Intervention**

Local health officials have traditionally carried out all or most of the lead poisoning prevention activities in communities. They should collaborate with physicians, educators, social service and housing agencies that have a role in community-wide primary prevention efforts. Lead poisoning prevention strategies work best as part of an integrated program that creates safe and affordable housing and provides people with the full range of needed social services. Local, state and federal agencies dealing with health, housing, environmental and children’s issues should be identified and contacted. Optimally, regular communication should be established among agencies to adopt and carry out joint prevention strategies.

<table>
<thead>
<tr>
<th>To be successful, community-level intervention requires four types of activities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Surveillance and risk assessment</strong> - Determining populations at risk and areas where the most exposures are occurring.</td>
</tr>
<tr>
<td>2. <strong>Outreach and education</strong> - Informing health care providers, parents, day care providers, early childhood educators, property owners and other key audiences about lead poisoning prevention.</td>
</tr>
<tr>
<td>3. <strong>Infrastructure building</strong> - Creating the resources needed for a successful program of risk abatement.</td>
</tr>
<tr>
<td>4. <strong>Hazard abatement</strong> - Abating the hazards of lead paint, dust and soil, particularly in high-risk buildings and neighborhoods.</td>
</tr>
</tbody>
</table>

Delegate agencies are required and strongly encouraged to make education an important part of their lead poisoning prevention programs. There are three primary components:

- Public Education
- Family Education
- Professional Education

**Public Education** – Outreach programs are one way to accomplish this. Participation in health fairs, public speaking at church functions, businesses and civic organizations are just a few examples on ways to educate the public.

**Family Education** – Education is required for the families of children identified with EBLLs. This can be provided in the home setting during the public health nurse home visit. Information regarding prevention activities and basic information regarding lead poisoning are appropriate topics for increasing awareness. Hygiene, housekeeping, nutrition and good parenting skills are the four key components of education programs in the home. See Appendix H for Anticipatory Guidance.
**Professional Education** - The local health department lead nurse should introduce herself by phone, letter or personal contact to the area physicians. She should explain her role in the case management of children with EBLLs. The local health department lead nurse may follow-up with a visit to provide educational materials for the physicians, staff and clients. The nurse also can provide education to the physicians by public speaking to physician groups during such instances as grand rounds.

**Record Keeping System**

Information about test results that have been reported to the Illinois Lead Program is sent to each delegate agency at least weekly. Reports listing newly confirmed cases (greater than or equal to 10 µg/dL) are forwarded to the delegate agencies on a weekly basis. These reports are only as accurate as the data reported.

A recordkeeping system is necessary to facilitate communication among health department case management, environmental management and medical management components.

**Medical Records**

It is expected that information on each child with an EBLL be documented in the recordkeeping system. All such information will assure proper case follow-up and provide information for legal purposes, if needed. This medical chart should include:

- a copy of the child’s lead level from the laboratory;
- the *Public Health Home Visit for Environmental Health and Lead Assessment* form;
- all consent forms;
- documentation and/or progress report regarding:
  - assessment
  - nutritional and educational materials;
- a current full case report from the Department’s data system;
- copies of all communication sent to the parent/guardian and physician, including environmental inspection correspondence;
- developmental screening; and
- all referrals.

**Transferring Cases**

When a county health department or local health district establishes itself as a new delegate agency with the Illinois Department of Public Health Illinois Lead Program, the regional nurse consultant who has been following the child(ren), will transfer all information to the appropriate individual within the newly established delegate agency.

**Retention of Records**

Consult the local state’s attorney or your agency’s legal counsel for regulations on retention of patient records.
Closing Cases

A policy for closing cases should exist within each agency. There are four reasons a case may be closed:

- the child moves to a different county
- the child has reached age 7 and has a BLL less than 10 µg/dL
- the child, younger than 7 years of age, has two BLLs less than 10 µg/dL or three BLLs less than 15 µg/dL
- lost to follow-up, the LHD is unable to contact the child and his/her family after numerous attempts have been made

Sample Policy for Closing a Case Lost to Follow-up or Non-Compliance in Blood Lead Testing

- The nurse will contact the child’s physician to ascertain if the child is continuing to receive services and if any testing or treatment not previously reported has been given for the EBLL.
- Letters will be sent as follows: 1) A letter will be sent to the parent/guardian reminding them to have their child retested and the letter will give the next test date; 2) subsequent letters will either provide the next scheduled test date; or 3) will be an overdue letter. Documentation of letters sent will be noted in the child’s file. A documented attempt at a home visit can be substituted for letter number one or two.
- If the parent/guardian has not responded to the letters, the nurse will send a final letter by certified mail to the parent/guardian, carbon copied to the physician.
- If the certified letter is returned as “undeliverable” or “no forwarding address,” the case can be closed. Retention of the returned letter or envelope in the medical record is necessary.
- If the certified letter is received, but there is no response from the parent/guardian and the BLL is less than 20 µg/dL, the case can be closed with complete documentation of events leading up to closing the case.
- If the nurse feels further follow-up may be necessary (e.g. BLL greater than 20 µg/dL and child is younger than 5 years of age), the case can be presented as part of a case conference with information provided by Environmental Health, regional nurse consultant and, when needed, the local health department director of nursing and/or physician. The review will determine if further action, such as referral to DCFS, is necessary.

If the child is tested later, the BLL will be imported and the case will reopen as necessary.

The Department recommends making three attempts to contact the family by telephone or letters. At least one contact (usually the last one) should be in the form of a certified letter. A letter returned by the U.S. Postal Service marked as undeliverable can be the final contact. Documentation of these attempts, including the certified letter, should be kept in the medical record as the agency’s proof of attempt to provide service.

Children with a prior EBLL requiring chelation may have a BLL that falls less than or equal to 20 µg/dL. Other children with chronic low-level exposures who have received education intervention may plateau at a level in the mid-teens. Children older than age 7 meeting these criteria may be discharged by the agency from the lead program.
Illinois Department of Public Health Monitoring

Quarterly Narrative

Each delegate agency is required to submit a quarterly report per Illinois Lead Program/Delegate Agency Grant Agreement on case management activities as requested by the Department. See Appendix J for the submission form to use when reporting to the Illinois Lead Program.

Program Evaluation Review

Program evaluation reviews are conducted at least every three years. These visits involve an on-site review of medical and environmental records, policies and procedures by the Department’s regional nurse consultant. Commendations and recommendations are communicated verbally to the agency at the end of the visit. A written report will be sent in 60 days. A written response is required from the delegate agency within 30 days of receipt of the letter, regarding corrective actions to be taken as recommended by the Illinois Lead Program.

Reimbursements for Lead Poisoning Services

Two primary sources of reimbursement for childhood lead testing and case management services are the Illinois Department of Healthcare and Family Services (HFS) and the Illinois Department of Public Health. Department of Children and Family Services (DCFS) wards involved in the Health Works Illinois (HWIL) program are eligible for services through the Illinois Department of Healthcare and Family Services (HFS).

For a provider number, billing questions, or for assistance in filling out reimbursement forms, contact the Healthcare and Family Services Bureau of Comprehensive Health Services switchboard at 877-782-5565.

Reimbursement for Lead Poisoning Services by Illinois Department of Public Health

Laboratory Services Reimbursement:

Delegate agencies receive payment for each blood sample analyzed by the state laboratory for any child living in an agency’s region. This payment is irrespective of the number of previous samples drawn from the child, which provider draws the blood, the blood test result or the Medicaid or indigent status of the child. The only requirement is that the Department laboratory analyzes the sample. The monies received are meant to provide nursing case management services to the children in each delegate agency’s region.

Health departments, rural health clinics and federally qualified health clinics (FQHC) that indicate that children are indigent (family income less than 185 percent poverty level and who are not eligible for Medicaid) are not charged for blood lead analysis done by the Department’s laboratory.
Laboratory Services:

For delegate agencies that use the Department’s laboratory, the laboratory also provides:

- supplies for the collection and mailing of blood lead samples,
- optional faxing of results to the provider, and
- direct reporting of results to the Illinois Lead Program relieving providers of this responsibility.

Delegate agencies that perform environmental inspections also receive free analysis of paint, dust and water samples through the Department’s laboratory. For information on signing up as a provider and using the scan forms, call 217-782-3517.

Private Pay Clients:

A local health department may charge for the services it provides to non-Medicaid clients, if that service is not reimbursed from another source or if the reimbursement does not cover costs. Each local health department should determine fees.

Laboratory Services Reimbursement:

A fee of $25.75 is assessed for each blood lead analysis for all clients not Medicaid-eligible or not indigent (less than 185 percent federal poverty level). For information on signing up as a provider and using the scan forms, call 217-782-3517.

**MEDICAL MANAGEMENT OF CHILDREN WITH ELEVATED BLOOD LEAD LEVELS**

Case management of children with elevated blood lead levels (EBLLs) requires a different approach from that used in the past. Prior to the development of programs aimed at screening children for EBLLs, lead exposure was generally not detected until a child presented with symptoms of lead toxicity. Neurological findings associated with acute encephalopathy (lethargy, ataxia, seizures, papilledema, and coma) were often the first signs of an EBLL, and children with these symptoms required immediate hospitalization and treatment. Encephalopathy could result from a blood lead level (BLL) greater than or equal to 70 µg/dL and could develop without prior symptoms. Among children with BLLs exceeding 150 µg/dL, laboratory abnormalities often included phosphaturia, proteinuria, aminoaciduria, glucosuria, and hypophosphatemia.

Today such presentations are rare. Children with EBLLs usually have BLLs less than 30 µg/dL, and few BLLs exceed 50 µg/dL. Most children with EBLLs have no symptoms. Case management now focuses on reducing children’s exposure to lead and decreasing their BLLs, whether they have symptoms of lead toxicity or not. What follows is a guide to the basic standards and principles of medical case management. It is not intended for use as a complete protocol but rather as a tool for adapting management to local needs and conditions.

Coordination of care is critical to successful case management. For each child, an individualized plan of follow-up must be devised and implemented. Members of the case management team need to maintain open lines of communication and work together. Case managers and primary care providers (PCPs), in particular, must work collaboratively to ensure proper medical management and follow-up.
HEALTH EDUCATION AND OUTREACH

Parental education should include information on the effects of lead on children and the need for assessment and testing. Parents should be informed about preventive measures, including risks for lead paint in their home, ways to identify other possible sources of lead in their home, nutrition, housekeeping and hygiene measures. Inform the parents about risk factors for childhood lead poisoning. Such outreach efforts can target individual parents or certain parent groups. Environmental stimulation, though not a cure, benefits all children and may help compensate for some of the effects of lead.

Outreach programs can be carried out through brochures, pamphlets and other written materials; local news media; school programs; physician awareness activities and community service organizations. The most important targets for outreach and educational programs are the following within high-risk ZIP codes:

- local public officials
- property owners
- parents
- day care providers
- health care providers
- early childhood educators

Targeting in the high-risk areas may mean physically being present in the identified ZIP code. Direct contact is important for reaching high-risk groups, especially for intervention with younger children. Educational visits and screenings in preschools, day care facilities and Head Start programs are successful and recommended. This includes church and school-based day care facilities. Schedule the educational visit to occur when parents are delivering or picking up their children.

Door-to-door campaigns have proven to be helpful in some neighborhoods. Mobile screening programs located at grocery stores or shopping centers may be successful. Off-site clinics, freestanding clinics and emergency care centers are other options for distributing information and encouraging screenings.

Outreach and education for health care providers can be accomplished through pamphlets, grand rounds, and continuing education programs targeted to pediatricians, family practitioners, pediatric and community health nurses, obstetricians and midwives. On a local level, the agency can inform all of the area physicians of the need for assessment and screening and case follow-up procedures.

Property owners, realtors and other real estate professionals need to learn how to maintain the property in a safe condition. Banks, mortgage companies and insurance companies can play an important role in conveying this information at critical times, such as when an individual is buying a property or seeking financing for major renovations. In addition, prospective buyers should be given written material that explains safe lead removal. A prospective buyer can arrange for a lead inspection (at their own expense).

Federal law requires landlords to disclose known information on lead-based paint and lead-based paint hazards before a lease can take effect and to distribute the EPA brochure about lead to the renter. Leases must include a disclosure form about lead-based paint.

Renters can ask for information at anytime to learn if there is lead in the home they plan to lease or rent. Before signing a lease, they should ask the landlord about any lead hazards in the home.
By Illinois law, day care providers must distribute information about lead poisoning and its effects. Parents can help by informing teachers about their children’s history, so teachers can be aware of potential educational needs.

The Illinois Department of Public Health has identified physicians willing to act as medical consultants on any issues relating to screening, evaluation, diagnosis, clinical management or treatment of lead poisoning, or to discuss any unusual cases that pose problems for clinicians. Physicians who would like to confer with a medical consultant should contact the Illinois Lead Program at 217-782-3517. State and regional telephone numbers for contact persons with the Illinois Lead Program are identified in Appendix K. They can assist with:

- Laboratory results
- Home inspection schedules and status
- Social service, early intervention and other referrals
- Public education programs and pamphlets

Other community contacts

While outreach, education and primary prevention are most important in identified high-risk locations, they can be beneficial to all communities, regardless of risk factor.

**Prevention of Lead Poisoning**

*Get the Lead Out* Series and Education Programs

The Illinois Lead Program developed the “Get the Lead Out” series, which consists of brochures and posters for use as educational material. The materials are available in both English and Spanish. Topics include prevention, intervention and renovation. Additionally, other lead-related booklets are available for landlords, renters and prospective home owners. Public health nurses and local health departments have numerous handout materials that are used during home visits and home demonstrations regarding nutrition and good housekeeping techniques. Information can be ordered by using the publications order form located on the Department Web site or by calling the Illinois Lead Program at 217-782-3517, or TTY (hearing impaired use only) 800-547-0466. The *Get the Lead Out* series, along with other available resources published by the Illinois Lead Program, can be viewed on the IDPH Environmental Health Web site at: http://www.idph.state.il.us/envhealth/ehpublications.htm#lead

The Department’s central office staff and regional staff participate in a variety of educational programs at day care centers, schools and medical and other professional conferences by invitation. Yearly lead safe community conference programs are conducted to provide information to professional and non-professional individuals who have an interest in lead poisoning.

Training sessions on the computer data collection program, are offered by Department staff throughout the year. Lead awareness training programs for personnel in local health departments are conducted several times each year. The training program includes segments on medical management, blood lead testing, environmental investigations, nursing case management, data management, and recommendations for healthy homes.
Appendix A

Definition of High- and Low-risk ZIP Codes for Childhood Lead Poisoning

The BLL in Illinois children is steadily decreasing as more children are screened. Healthy People 2010 established a national goal to eliminate lead poisoning by the year 2010. The state of Illinois adopted a targeted approach to achieve this goal.

An amendment to the Illinois Lead Poisoning Prevention Act was signed into law in August 1995. This required the Department to designate areas of the state where children through 6 years of age are considered to be at high risk for lead exposure and areas where children are considered to be at low risk for such lead exposure. The first risk index for childhood lead was developed in 1996 and modified in 2003.

The 2003 revision of the high-risk ZIP codes was based on housing data and family economic status (200 percent poverty and below) obtained from the 2000 Census. The proportion of housing units estimated to have a lead hazard by ZIP code was determined based on the following classification:

- Pre-1940 = 68 percent with lead hazards
- 1940 to 1959 = 43 percent with lead hazards
- 1960 to 1977 = 8 percent with lead hazards
- 1978 to 1998 = 3 percent with lead hazards


The RANK procedure with a double weight on the housing data was used to make determination for each ZIP code in the state. Each variable was assigned scores between 1 and 9 (1 = lowest and 9 = highest). The scores were summed up by ZIP codes: 3 to 27. The ranking procedure was performed with and without Chicago. Based on current and previous analysis, all of Chicago was considered high risk. The ranking procedure to determine high- and low-risk ZIP codes highly correlated with actual EBLL prevalence data ($R^2 = 0.92$) obtained from January 2000 to December 2002 (see graph).

Compared to 1996 analyses, 29.5 percent of the ZIP codes remained persistently high risk and 45 percent have maintained low-risk status. It is worth noting that 14.6 percent previously high-risk ZIP codes are now low risk. It also was disturbing to note that 10.9 percent of previously low-risk ZIP codes became high risk. The new 2000 census shows migration of low-income families, a condition that significantly increases risk for blood lead poisoning.

We use high-risk for testing and screening purposes especially to increase testing for childhood lead poisoning among physicians for the following reasons:

- ZIP codes are the smallest geographic entity, which are readily available
- Physicians and patients can relate an address to a ZIP code better than relating an address to a census track or census block.

We are aware that ZIP codes constantly change for efficient mail delivery by the postal service. We also are aware that census track and census blocks may change only after a census is conducted (usually after every 10 years) making them better indicators of high-risk areas.
• Our short-term goal is to use our most available resource (ZIP codes) to determine high-risk areas for lead in Illinois.
• Our long-term goal is to establish an efficient data cleaning procedure for addresses before developing high-risk ZIP codes by census track or census block.

However, please be aware that the ZIP codes are used in conjunction with the Lead Risk Assessment Questionnaire (LRAQ). The LRAQ was designed by the Illinois Childhood Lead Poisoning Elimination Advisory Council in 2006 as a two-part assessment of the child’s potential exposure to lead hazards. The child is most likely to be exposed to risk hazards if he or she resides in a high-risk ZIP code. If the child resides in a low-risk area, the health care provider asks the parent/guardian a series of questions. Any single “yes” or “don’t know” response requires a blood lead test. The LRAQ has been updated routinely and has been found to be a useful assessment tool.

Figure 1. Relationship between total score and aggregate EBLL prevalence rate. Total score based on ranked ZIP codes was determined from the sum of the double weight of proportion of housing units with lead and number of families living at less than or equal to 200 percent poverty level. Lead prevalence was based on lead test from 2000 to 2002. $y = 1.5664e^{0.0892x}$ $R^2 = 0.9239$ where $y$=aggregate lead prevalence by score and $x$= total score (3 to 27). $R^2$ (R squared) is the relative predictive power of the model. $R$ squared is a descriptive measure between 0 and 1. The closer it is to one, the better the model. Total scores of greater than or equal to 18 were considered high-risk ZIP codes. Scores less than 18 with prevalence greater than or equal to 8 percent were considered high-risk if 30 percent of children were tested for lead poisoning (45 ZIP codes).
Appendix B
Sample Lead/Hemoglobin Screening Consent

Child’s Name
Last          First          Middle Initial
DOB ____/____/____

Has this child been to Lead Clinic before? _____ Yes _____ No

Does the child have a Medicaid Card? ____ No Yes # __ /___/___/___/___/___/___/___/___

Sex: Race: check all that apply
____ Male    ____ White      ____ Black/African American
____ Female  ____ American Indian  ____ Native
____ Alaskan Native  ____ Asian
____ Unknown  ____ Native Hawaiian or Other Pacific Islander

Ethnicity:
____ Hispanic or Latino     ____ Capillary Pb
____ Non-Hispanic or Latino  ____ Venous Pb

Child’s Physician
______________________________________________________________________

Parent/Guardian
Name              Phone Number
_____________________________________________________________________
Street Address - Not P.O. Box  City  ZIP Code

_____ I consent to having my child screened for lead poisoning and/or a hemoglobin test by finger stick. If she/he has a positive screen for lead, I will allow the XXXXX County Department of Public Health to collect another blood sample from a vein (venipuncture) for a confirmation.

_____ If my child’s test shows an elevated level of lead in the blood, I will allow the lead program nurse or environmental inspector in my home to check for the source of the lead and cooperate with them in finding ways to prevent further exposure to lead.

_____ I authorize the XXXXX County Department of Public Health to release my child’s BLL and/or follow-up services information to the following entities for the purpose of providing follow-up services.
_____________________________________________________________________________
_____________________________________________________________________________

_____ I understand that this consent is good for one year and may be revoked at any time. I further agree that a photocopy of facsimile of this consent is as valid as the original, even though such copy does not bear my original signature.

Parent/Guardian Signature   Date

Signature of XXXXX County Dept. of Public Health  Date
Employee Collecting Blood Sample

Witness  Date

27
Appendix C
Sample for Request of Information

Illinois Department of Public Health
Division of Environmental Health
Illinois Lead Program

Request for Information

I, ___________________________________, parent or guardian of ____________________________, a minor child, hereby authorize

NAME

ADDRESS

CITY STATE ZIP

To provide the Illinois Department of Public Health’s Illinois Lead Program with diagnostic and treatment information related to lead poisoning for the above name child.

I understand that this consent is for a one-year period of time and may be revoked at any time. I further agree that a photocopy of facsimile of this consent is as valid as the original, even though such copy does not bear my original signature.

Signed: ________________________  Date: ________________________

Witness: ___________________________
Appendix E

New High-risk ZIP Codes
Effective January 2005
Appendix F

Guidelines for Blood Lead Screening and Lead Risk Assessment

• **Blood lead screening** is defined as obtaining a blood lead test. **Lead risk assessment** is defined as evaluation of potential for exposures to lead based on questionnaire responses.

• **It is always appropriate to obtain a diagnostic blood lead test when a child is symptomatic or potential exposure to lead has been identified, regardless of child’s age.**

• Federal mandates and the Illinois Department of Healthcare and Family Services’ (HFS) policy require that all children enrolled in HFS medical programs be considered at risk for lead poisoning and receive a screening blood lead test prior to age **12 months and 24 months**. Children older than the age of 24 months, up to 72 months of age, for whom no record of a previous screening blood lead test exists, also should receive a screening blood lead test. **All children enrolled in HFS medical programs are expected to receive a blood lead test regardless of where they live.** (Consult Handbook for Providers of Healthy Kids Services, Chapter HK-203.3.1, for more blood lead screening and reporting information.)

• Illinois has defined ZIP code areas at high risk and low risk for lead exposure based on housing age and poverty rates. Review the list of ZIP codes and determine status of ZIP codes in your area.

**Childhood Lead Risk Assessment Questionnaire**

- Complete the Childhood Lead Risk Assessment Questionnaire during a health care visit at ages 12 months and 24 months.
  - If responses to all the questions are “NO,” re-evaluate at every well child visit or more often if deemed necessary.
  - If any response is “YES” or “DON’T KNOW,” obtain a blood lead test.
- Consider evaluating children before 12 months of age, depending on the area.
- If the child is age 3 years to 6 years **and**
  1) there are any “YES” or “DON’T KNOW” answers **and**
  2) has had two successive blood lead test results that were each less than 10 mcg/dL with one of these tests at age 2 years or older **and**
  3) risks of exposure to lead have not changed, **further blood lead tests are not necessary.**
- If the child is 3 years to 6 years of age, **and**
  1) all answers to the Childhood Lead Risk Assessment Questionnaire are “NO,” **and**
  2) risks of exposure to lead have not changed, a blood lead test is not necessary.
- If the child is 3 years to 6 years of age and risks of exposures to lead have increased, obtain a blood lead test.
- Continue to use the Childhood Lead Risk Assessment Questionnaire through age 6.

**For children living in Chicago:**

- A blood lead test for children age 3 and younger should be obtained at 6, 12, 18, 24 and 36 months **OR** at 9, 15, 24 and 36 months.
- Children 4 years through 6 years of age with prior blood lead levels of <10 mcg/dL should have an annual risk assessment. A blood lead test should be performed if risk increases or if the child exhibits persistent oral behaviors.

Illinois Lead Program

866-909-3572 or 217-782-3517
TTY (For Deaf, Hard of Hearing Use Only) 800-547-0466
Printed by Authority of the State of Illinois
P.O. #5511502    2M    10/10
Appendix G

Illinois Department of Public Health Childhood Lead Risk Assessment Questionnaire
All Children 6 Months Through 6 Years Of Age Must Be Assessed For Lead Poisoning
(410 ILCS 45/6.2)

Name ___________________________    Today’s Date_________________________________
Age _____________  Birthdate ________________  ZIP Code _________________

Respond to the following questions by circling the appropriate answer.

1. Is this child eligible for or enrolled in Medicaid, Head Start, All Kids or WIC?  Yes  No  Don’t Know
2. Does this child have a sibling with a blood lead level of 10 µg/dL or higher?  Yes  No  Don’t Know
3. Does this child live in or regularly visit a home built before 1978?  Yes  No  Don’t Know
4. In the past year, has this child been exposed to repairs, repainting or renovation of a home built before 1978?  Yes  No  Don’t Know
5. Is this child a refugee or an adoptee from any foreign country?  Yes  No  Don’t Know
6. Has this child ever been to Mexico, Central or South America, Asian countries (i.e., China or India), or any country where exposure to lead from certain items could have occurred (for example, cosmetics, home remedies, folk medicines or glazed pottery)?  Yes  No  Don’t Know
7. Does this child live with someone who has a job or a hobby that may involve lead (for example, jewelry making, building renovation or repair, bridge construction, plumbing, furniture refinishing, or work with automobile batteries or radiators, lead solder, leaded glass, lead shots, bullets or lead fishing sinkers)?  Yes  No  Don’t Know
8. At any time, has this child lived near a factory where lead is used (for example, a lead smelter or a paint factory)?  Yes  No  Don’t Know
9. Does this child reside in a high-risk ZIP code area?  Yes  No  Don’t Know

A blood lead test should be performed on children:
• with any “Yes” or “Don’t Know” response
• living in a high-risk ZIP code area

All Medicaid-eligible children should have a blood lead test at 12 months of age and at 24 months of age. If a Medicaid-eligible child between 36 months and 72 months of age has not been previously tested, a blood lead test should be performed. If there is any “Yes” or “Don’t Know” response; and
• there has been no change in the child’s living conditions; and
• the child has proof of two consecutive blood lead test results (documented below) that are each less than 10 µg/dL (with one test at age 2 or older), a blood lead test is not needed at this time.

Test 1: Blood Lead Result ______ µg/dL   Date _______  Test 2: Blood Lead Result ______ µg/dL   Date _______

If responses to all the questions are “NO,” re-evaluate at every well child visit or more often if deemed necessary.

Signature of Doctor/Nurse ___________________________________________  Date ________________

Printed by Authority of the State of Illinois  P.O. # 537355    2M    6/07
Appendix H

Anticipatory Guidance for the Illinois Lead Program

Name

1. Effects on young children
2. Need for retesting
3. Sources of lead
4. Housekeeping:
   - Use a wet rag, paper towels or mop to remove dust and loose paint chips from window wells, woodwork and floors.
   - Use household detergent and rinse with clean water.
   - Clean dust rags separately from other laundry or throw away.
   - Wash child’s hands frequently, especially before eating, napping, bedtime and after play.
   - Wash toys that are mouthed frequently.
   - Place rugs or mats and remove shoes at entry ways.
   - If the parent/frequent visitor works in a lead environment, change clothes before entering home and wash separately.
   - Steam clean carpets twice to remove lead dust. Steam clean twice again after lead hazard is removed.
   - Moisten loose paint before scraping.
   - Move child’s furniture away from windows and block windows so child cannot get near them.
   - Make sure children are not in work area during mitigation.
   - Do not store food in cans or ceramic pottery.
   - Use duct tape or contact paper to cover peeling, chipping paint until permanent removal is done.
   - Wash bedclothes weekly.
   - Remove all mini-blinds, if possible.
   - Place ground covering (grass, rock, bark, etc.) in areas close to houses or buildings where bare soil is present so children will not find loose paint chips or contaminated soil.
5. Hygiene:
   - Wash child’s hands several times a day.
   - Keep fingernails short and clean.
   - Keep hands away from mouth and face.
   - Clean toys, pacifiers, bottle nipples, sippy cups, etc. after being on the floor.
   - Always eat at a cleaned table or highchair.
   - Use vinyl tablecloth or mat for the child to sit and watch television or to play on.
6. Nutrition:
   - Provide a healthy diet, particularly with recommended amounts of iron, calcium and Vitamin C to slow the absorption of lead into the blood.
   - Eat five to six times per day, which consists of three meals and two—three snacks.
   - Do not use hot tap water for cooking, bottles or drinking.
   - Water can be contaminated from lead pipes. Prior to use, cold tap water should be run 60 seconds until a difference in temperature is noted.
   - Imported metal-seamed cans may contain lead. Transfer the food from cans that are opened into glass or plastic containers immediately. Metal cans that have dented seams should be discarded without opening.
7. Parenting skills:
   - Read
   - Play
   - Supervise where and what children play with to monitor for lead exposure.
   - Provide environmental stimulation and interaction with the child. Good parental interaction can improve a child’s cognitive and behavioral outcomes.

Given by_________________________________________ Date_______________________
### Appendix I

**Public Health Home Visit Form for Environmental Health and Lead Assessment**

#### A. FAMILY ASSESSMENT

<table>
<thead>
<tr>
<th>Number of children in household</th>
<th>Name</th>
<th>DOB</th>
<th>Relationship</th>
<th>Lead Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

1. **Parent’s occupations/hobbies**

2. Are there any pregnant women in the household?  
   - [ ] yes  
   - [ ] no

   - a. Have the pregnant women been tested for lead?  
     - [ ] yes  
     - [ ] no

   - Results _______ Reason for testing

   - b. Has educational material been given to pregnant women?  
     - [ ] yes  
     - [ ] no

   - c. Occupation ___________________________  
     Hobby _______________________________

3. What does the parent/guardian think may be the source of the lead poisoning?

#### B. CHILD’S HEALTH STATUS AND HISTORY

#### C. REVIEW OF SYMPTOMS

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Initial Visit Date</th>
<th>Follow-up Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain</td>
<td></td>
<td></td>
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<tr>
<td>Constipation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extreme activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive tiredness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
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</tr>
</tbody>
</table>

#### D. DEVELOPMENTAL DELAYS

| Gross motor            |                    |                |
| Fine motor             |                    |                |
| Previous testing/evaluation |                |                |
| Social skills          |                    |                |
| Speech                 |                    |                |
### Appendix I (continued)

#### E. ORAL TENDENCIES

1. Has the child been observed mouthing or eating non-food substances?  
   - yes  
   - no
2. What does the child put in his/her mouth?  
   - Hands  
   - Toys  
   - Windowsills  
   - Magazines  
   - Newspapers  
   - Railings/Moldings  
   - Doors  
   - Furniture  
   - Dirt  
   - Other _____________________
3. How often does the child put his/her hands or other objects in his/her mouth?  
   - Never/Rarely  
   - Sometimes  
   - Often/Frequently
4. Is the child a thumb/finger sucker/nail biter?  
   - yes  
   - no
5. Does the child use a pacifier?  
   - yes  
   - no

#### F. SLEEPING AREAS

1. Is there loose paint on nearby walls or the ceiling that could fall into the child’s bed?  
   - yes  
   - no
2. Does the crib, furniture or windowsills show teeth marks?  
   - yes  
   - no
3. Is the child’s bed near a window exposed to inside/outside sources of lead?  
   - yes  
   - no

#### G. FOOD PREPARATION AND EATING AREA

1. Is any paint peeling from ceilings or walls in the food preparation or eating areas?  
   - yes  
   - no
2. Are there any windows or doors in the food preparation area that could create lead dust?  
   - yes  
   - no
3. Do you use hot tap water when preparing food or bottles?  
   - yes  
   - no
4. Do you prepare or store food in or eat food from cans or pottery?  
   - yes  
   - no
5. Do you use glazed dishes or dishes made in a foreign country?  
   - yes  
   - no

#### H. EATING HABITS

1. Is your child enrolled in the Women, Infants, Children (WIC Program)?  
   - yes  
   - no
2. How many meals and snacks per day does your child eat?  
   ______________________
   At what times?   ______________________
3. How many servings of fruit and vegetables does your child eat per day?  
   ______________________
4. How many servings per day does your child eat meat/eggs/dried beans?  
   ______________________
5. How many ounces of milk/yogurt/cheese does your child drink or eat per day?  
   ______________________
6. Does your child use a bottle?  
   - yes  
   - no
7. Do you use bottled water to prepare formula or other drinks for your child?  
   - yes  
   - no
8. Does the bottled water include fluoride?  
   - yes  
   - no
9. Does your child take a vitamin with iron or other supplements every day?  
   - yes  
   - no
10. Do you have any food, candy or supplements that were packaged in another country?  
    - yes  
    - no

#### I. PLAY HABITS AND ENVIRONMENTAL SAFETY

1. Does your child hide and play quietly?  
   - yes  
   - no  
   If yes, where?   ________________
2. Where else inside the house does your child play?  
   ______________________________
3. Where does your child play outside?  
   ______________________________
4. Does your child play in the basement?  
   - yes  
   - no
5. Does your child play on the porch?  
   - yes  
   - no
6. Has anyone in the home been diagnosed with asthma?  
   - yes  
   - no
7. Does anyone in the home have asthma now?  
   - yes  
   - no
8. Do you have pets?  
   - yes  
   - no
9. Does anyone smoke in the house?  
   - yes  
   - no
10. Is there a garage/outbuilding on the property?  
    - yes  
    - no
## I. PLAY HABITS AND ENVIRONMENTAL SAFETY (cont.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Are there mini-blinds in the sleep or play area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Are the cords on the mini-blinds out of reach of the child?</td>
<td></td>
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<tr>
<td>13. Does your child play at the window?</td>
<td></td>
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<tr>
<td>14. Does your child play with painted or metal toys, antique toys or toy jewelry?</td>
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<tr>
<td>15. Do you keep all firearms in a locked gun safe?</td>
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<tr>
<td>16. Do you utilize safety gates to prevent a child from entering a stairwell or other area that might present a danger to the child?</td>
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<tr>
<td>17. Do you have operational CO detectors?</td>
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<tr>
<td>Do you have operational smoke alarms?</td>
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<td></td>
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<tr>
<td>Do you have an operational fire extinguisher?</td>
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<tr>
<td>18. Do you use safety products, i.e., child bathtub chairs and gates at swimming pools and other areas to prevent accidental drowning?</td>
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<tr>
<td>19. Do you use indoor pesticides?</td>
<td></td>
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<tr>
<td>20. Are you aware of any water problems or mold conditions?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## J. OBSERVATION OF DWELLING UNIT

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Exterior construction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Painted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td></td>
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<tr>
<td>Other________</td>
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<tr>
<td>2. Is paint peeling or chipping from walls or ceiling?</td>
<td></td>
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<tr>
<td>If so, where?</td>
<td></td>
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<tr>
<td>3. Is the house in a high traffic area or near an industry (i.e., foundry, lead smelter, battery recycling facility)?</td>
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<tr>
<td>4. Are renovations occurring?</td>
<td></td>
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<tr>
<td>5. Housekeeping practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td></td>
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<tr>
<td>Moderate</td>
<td></td>
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<tr>
<td>Poor</td>
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<tr>
<td>6. Overall condition of the house?</td>
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<tr>
<td>Good</td>
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<tr>
<td>Moderate</td>
<td></td>
<td></td>
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<tr>
<td>Poor</td>
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<tr>
<td>7. Age of windows</td>
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<tr>
<td>8. Has your home been tested for radon?</td>
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<tr>
<td>9. Are you interested in information on how to obtain a test kit?</td>
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<tr>
<td>10. Offenders or non-workers present in the home</td>
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<tr>
<td>11. Are there any past investigations of the property?</td>
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<tr>
<td>12. Are there any active investigations?</td>
<td></td>
<td></td>
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<tr>
<td>13. Are there any outstanding testing orders?</td>
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<td></td>
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<tr>
<td>14. Are there any outstanding investigations?</td>
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<tr>
<td>15. Are there any outstanding orders for the property?</td>
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<tr>
<td>16. Are there any outstanding testing orders for the property?</td>
<td></td>
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<tr>
<td>17. Is the property listed on the current testing order?</td>
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<tr>
<td>18. Is the property listed on the current inspection order?</td>
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<tr>
<td>19. Is the property listed on the current investigation order?</td>
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<tr>
<td>20. Is the property listed on the current order for the property?</td>
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<tr>
<td>21. Are there any outstanding orders for the property?</td>
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<tr>
<td>22. Are there any outstanding testing orders for the property?</td>
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<tr>
<td>23. Are there any outstanding inspections of the property?</td>
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<tr>
<td>24. Are there any outstanding investigations of the property?</td>
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<tr>
<td>25. Are there any outstanding orders for the property?</td>
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<tr>
<td>26. Are there any outstanding testing orders for the property?</td>
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<tr>
<td>27. Are there any outstanding inspections of the property?</td>
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<tr>
<td>28. Are there any outstanding investigations of the property?</td>
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<tr>
<td>29. Are there any outstanding orders for the property?</td>
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<tr>
<td>30. Are there any outstanding testing orders for the property?</td>
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<tr>
<td>31. Are there any outstanding inspections of the property?</td>
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<tr>
<td>32. Are there any outstanding investigations of the property?</td>
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<tr>
<td>33. Are there any outstanding orders for the property?</td>
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<tr>
<td>34. Are there any outstanding testing orders for the property?</td>
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<tr>
<td>35. Are there any outstanding inspections of the property?</td>
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<tr>
<td>36. Are there any outstanding investigations of the property?</td>
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</tbody>
</table>

### COMMENTS

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Staff conducting home visit
Case manager
Nurse signature
Today’s date
Date of environmental investigation referral
Appendix I (continued)

Care Plan/Assessment

**Nursing Diagnosis:** Elevated blood lead level as evidenced by confirmatory level of _______.

**Goal:** The family will have an improved understanding of elevated blood lead levels and will carry out practices that will minimize lead exposure. The child will have decreased blood lead levels and will demonstrate optimal growth and development.

<table>
<thead>
<tr>
<th>Intervention:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discuss possible sources of lead exposure (paint, occupation, cultural).</td>
<td></td>
</tr>
<tr>
<td>Identify, if possible, the lead source.</td>
<td></td>
</tr>
<tr>
<td>2. Conduct &quot;visual assessment&quot; of the child’s environment.</td>
<td></td>
</tr>
<tr>
<td>3. Discuss effects of elevated blood lead levels (IQ/behavior/growth).</td>
<td></td>
</tr>
<tr>
<td>4. Review behaviors that put child at risk for lead exposure (hand mouth).</td>
<td></td>
</tr>
<tr>
<td>5. Review housekeeping, cleaning, remodeling, hygiene.</td>
<td></td>
</tr>
<tr>
<td>6. Discuss nutrition (iron, vitamin c, calcium, 3 meals, 3 snacks).</td>
<td></td>
</tr>
<tr>
<td>7. Refer for environmental inspection, document referral.</td>
<td></td>
</tr>
<tr>
<td>8. Explain need for follow-up testing.</td>
<td></td>
</tr>
<tr>
<td>9. Refer or conduct developmental screening.</td>
<td></td>
</tr>
<tr>
<td>10. Referrals to social service agencies/programs (WIC, Medicaid, FS).</td>
<td></td>
</tr>
<tr>
<td>11. Physician contact.</td>
<td></td>
</tr>
<tr>
<td>12. Provide educational materials.</td>
<td></td>
</tr>
<tr>
<td>13. Offer radon information and access to testing kits.</td>
<td></td>
</tr>
</tbody>
</table>

Nurse signature________________________ Date ____________________
Appendix J
Illinois Lead Case Management Quarterly Narrative Report

Delegate Agency’s Name:

Date of Submission______________________

Indicate Reporting Period   (FY xxxx)
   ____ First Quarter  (July-Sept xxxx)
   ____ Second Quarter  (Oct-Dec xxxx)
   ____ Third Quarter   (Jan-March xxxx)
   ____ Fourth Quarter  (April-June xxxx)

1) Program progress or highlights, number of children screened this quarter

2) Activities related to increasing blood lead screenings compliance of Medicaid eligible children:

3) Educational, Collaboration, or Outreach Activities:

4) Specific problems requiring assistance:

Please specify # of open cases _________ and # of Nurse home visits _____________
(This quarter ONLY)

5) Please note any personnel changes regarding lead program staff:

   Name ___________________________     Position ___________________________

   Name ___________________________     Position ___________________________

Form completed by: ___________________________     Date: ___________________________

FY 2011
### Appendix K
#### Telephone Information

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDPH - Information and Referral Hotline</td>
<td>866-909-3572</td>
</tr>
<tr>
<td>IDPH - Champaign Regional Office</td>
<td>217-278-5900</td>
</tr>
<tr>
<td>IDPH - Edwardsville Regional Office</td>
<td>618-656-6680</td>
</tr>
<tr>
<td>IDPH - Marion Regional Office</td>
<td>618-993-7010</td>
</tr>
<tr>
<td>IDPH - Peoria Regional Office</td>
<td>309-693-5360</td>
</tr>
<tr>
<td>IDPH - Rockford Regional Office</td>
<td>815-987-7511</td>
</tr>
<tr>
<td>IDPH - West Chicago Regional Office</td>
<td>630-293-6800</td>
</tr>
<tr>
<td>IDPH - Childhood Blood Lead Test Reporting</td>
<td>217-782-3517</td>
</tr>
<tr>
<td>IDPH – Division of Environmental Health, Indoor Air Quality</td>
<td>217-785-5886</td>
</tr>
<tr>
<td>IDPH – Division of Environmental Health, Structural Pest Control</td>
<td>217-782-5830</td>
</tr>
<tr>
<td>IDPH – Division of Environmental Health, Toxicology Program</td>
<td>217-782-5830</td>
</tr>
<tr>
<td>IDPH – Division of Chronic Disease Prevention and Control</td>
<td>217-782-3300</td>
</tr>
<tr>
<td>IEMA – Division of Nuclear Safety Radon Program</td>
<td>800-325-1245</td>
</tr>
<tr>
<td>IDPH Lab – Springfield</td>
<td>217-782-6562</td>
</tr>
<tr>
<td>IDPH - Division of Environmental Health/Lead Abatement Program</td>
<td>217-782-3517</td>
</tr>
<tr>
<td>Chicago Department of Public Health (CDPH) Environmental Lead Program</td>
<td>312-746-7810 or 312-746-7820 or 312-747-LEAD</td>
</tr>
<tr>
<td>National Lead Information Center Clearinghouse</td>
<td>800-424-LEAD</td>
</tr>
</tbody>
</table>
# Lead Program Contact Record and Order Form

To request free brochures please complete the requested information on both sides (Print or Type).

<table>
<thead>
<tr>
<th>Your Name</th>
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</thead>
<tbody>
<tr>
<td>Organization</td>
</tr>
<tr>
<td>Mailing Address</td>
</tr>
<tr>
<td>City</td>
</tr>
<tr>
<td>Daytime Phone</td>
</tr>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>

## Office Use

<table>
<thead>
<tr>
<th>Order Sent To Warehouse</th>
<th>Yes</th>
<th>No</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sent By</td>
<td></td>
<td></td>
<td>Order Number</td>
</tr>
</tbody>
</table>

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### Lead Program Contact Record and Order Form

Please indicate the number of copies needed in the English, Spanish and/or French column(s).

**No more than 300 copies may be ordered of any one material**

<table>
<thead>
<tr>
<th>Item</th>
<th>Title</th>
<th>Number of Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>English</td>
</tr>
<tr>
<td><strong>Lead Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Brochures</strong></td>
<td>Prevention (How to protect against lead poisoning)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Intervention (How to lower blood lead levels in children)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Renovation (How to safely remove old paint)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Activities to Reduce Lead Exposure</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>A Landlord’s Guide for Working Safely With Lead</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Lead Paint Safety (EPA)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Homeowners’ Lead-based Paint Abatement Guide</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Work Lead Safe When Remodeling</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Protect Your Family From Lead in Your Home (EPA)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Buying a Home? Here’s What You Need to Know About Lead-based Paint! (EPA)</td>
<td>NA</td>
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<tr>
<td></td>
<td>Renovate Right (EPA)</td>
<td>NA</td>
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<tr>
<td></td>
<td>Lead Safety During Renovation (EPA)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Steps to Lead-Safe Renovations (EPA)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Small Entity Compliance Guide to Renovate Right</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Environmental Health Facts – Lead</td>
<td>NA</td>
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<tr>
<td></td>
<td>Poster (Shows various sources of lead in home)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Poster (WARNING for Paint Supply Stores)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Brochures (WARNING for Paint Supply Stores)</td>
<td>NA</td>
</tr>
</tbody>
</table>

| **Handouts** | | |
| Childhood Lead Poisoning (green) | |
| Medical Consequences (goldenrod) | |
| Housekeeping (blue) | |
| Nutrition (yellow) | |
| Sources of Lead (buff) | |
| For Health Care Providers (pink) | NA | NA | |
| Choice of Medical Management – (Physician’s Wall Reference Poster) | NA | NA | |
| What You Should Know About Exposure to Lead (for Daycare Providers) | NA | | |
| Pregnant Women and Lead Poisoning | NA | | |
| Fight Lead Poisoning with a Healthy Diet (EPA) | NA | | |

| **Administrative Directive/Other** | | |
| Lead Risk Assessment Questionnaire | NA | | |
| High Risk ZIP Code Areas | NA | | |
| Lead Risk Assessment Questionnaire Guidelines | NA | NA | |
| Lead Risk Assessment Questionnaire/Medical Record Copy | NA | NA | |
| Lead Poisoning Prevention Act | NA | NA | |
| Lead Poisoning Prevention Code | NA | NA | |
| A Reference Guide for Physicians and Health Care Providers | NA | NA | |
| Lead Screening & Case Follow-up Guidelines for Local Health Departments | NA | NA | |
| Surveillance Report Year ________ | NA | NA | |
| Other Items | | | | |

**Rev. 7/2010**

Printed by Authority of the State of Illinois
P.O. #5511480 1.0M 7/10

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Appendix M

Links to other sites with lead poisoning information

Alliance to End Childhood Lead Poisoning – http://www.cehn.org/cehn/resourceguide/ateclp.html
Chicago Department of Public Health – http://www.cityofchicago.org/health
Global Lead Network – http://www.globaleadnet.org/
Illinois Department of Public Health, Division of Environmental Health – http://intra.idph.il.IDPH+Intranet/Environmental+Health/Channel+Home.htm
Illinois Department of Public Health, Epidemiology– http://www.idph.state.il.us/about/epi/index.htm
Illinois Department of Public Health, Laboratory – http://www.idph.state.il.us/about/laboratories/hclintes.htm
Illinois Department of Public Health, City and County Health Departments – http://www.idph.state.il.us/local/home.htm
Minnesota Department of Health – http://www.health.state.mn.us/divs/eh/lead/index.html
National Center for Lead Safe Housing – http://www.centerforhealthyhousing.org
National Lead Information Center - http://www.epa.gov/lead/pubs/nlic.htm
National Institute of Occupational Safety and Health – http://www.cdc.gov/niosh/topics/ables/default.html
The Coalition to End Childhood Lead Poisoning – http://www.lead safe.org/
U.S. Centers for Disease Control and Prevention – http://www.cdc.gov/nceh/lead/lead.htm
U.S. Centers for Disease Control and Prevention – http://www.cdc.gov/nceh/lead/lead.htm
Appendix N

Resources


