

LEAD SCREENING AND CASE FOLLOW-UP GUIDELINES FOR LOCAL HEALTH DEPARTMENTS

Illinois Department of Public Health
Division of Health Assessment and Screening
Childhood Lead Poisoning Prevention Program

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PREFACE

Lead Screening and Case Follow-up Guidelines for Local Health Departments has been developed by the Illinois Department of Public Health to help delegate and non-delegate agencies provide guidance and direction to those individuals who are responsible for delivering lead services. The guidelines begin with an overview of lead poisoning, including the effects of lead poisoning and common sources of lead. The manual then covers the assessment and screening process and provides an overview of the medical management of lead poisoning. This manual is considered a companion document to the January 1996 *Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers*.

Delegate agency responsibilities are also outlined. Information on integrating services, obtaining consents and keeping records is included and reflects legislative and program changes that have occurred since this document was last published in March 1994.

As the Department's lead poisoning prevention program has evolved, the program's interaction with other agencies has evolved, as well. Communities, too, have become more involved in intervention activities. Both of these areas are briefly discussed.

The section relating to reimbursement for lead services has been expanded to provide more thorough information.

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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 unit.
Assessment	Administration of the risk questionnaire to the parent by health care provider.
BLL	Blood lead level
CBC	Complete blood count
CDC	U.S. Centers for Disease Control and Prevention
CLPPP	Childhood Lead Poisoning Prevention Program
Confirmatory	Means a venous blood lead test. This is required to open a case in the STELLAR 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
EPSDT	Early Periodic Screening, Diagnosis and Treatment
IDPH	Illinois Department of Public Health
LHD	Local health department
MCHPC	Maternal/Child Health Primary Care
PHN	Public health nurse
Remediation	Correction of a lead hazard so that any lead-bearing substance does not pose an immediate health risk to humans.
Screening	Refers to blood lead testing by venous or capillary methodology.
STELLAR	“Systematic Tracking of Elevated Lead Levels And Remediation” software program

INTRODUCTION

This revised document includes information presented in the January 1996 *Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers*, developed by the Illinois Department of Public Health (IDPH) with the assistance of the Medical Advisory Committee for its Childhood Lead Poisoning Prevention Program. The revised guidelines provide information on federal standards for determining lead poisoning at lower levels, revised state laws on screening, revised CDC guidelines and the medical management and treatment of children with lead poisoning.

Childhood lead poisoning is one of the most common and preventable pediatric health problems in the United States today. Children are particularly susceptible to lead's toxic effects. Because of evidence showing adverse effects at low blood lead levels, guidelines from the U.S. Centers for Disease Control and Prevention have changed the definition of lead poisoning to a blood lead level greater than or equal to 10 mcg/dL. An article by Brody, entitled "Blood Lead Levels in the United States," published in the July 1994 *Journal of the American Medical Association* states that approximately 1.7 million children between the ages of 1 and 5 have blood lead levels at or above 10 mcg/dL.

Lead poisoning, particularly its negative impact on children during the early growth years, is a public health problem of continuing importance. As an understanding of the ramifications of lead poisoning has continued to evolve, public health advocates have pushed for crucial legislation that has decreased the amount of lead in gasoline, new paint, metal solder and plumbing components. As a result, few children suffer from the effects of lead encephalopathy. However, a great deal of old leaded paint still exists in older housing, and thousands of children continue to be exposed to lower doses of lead that can result in subtle but serious health problems. In fact, 74 percent of all homes built in the United States before 1978 have lead-based paint in them.

Currently in Illinois, more than 150,000 screenings are provided annually by local health departments, private physicians and other health service providers. Data from the IDPH 1996 Childhood Lead Poisoning Surveillance Report identified 18,537 children with lead levels ≥ 15 mcg/dL.

To effectively address childhood lead poisoning, comprehensive community intervention programs are needed. These should include—

- education and counseling for children with confirmed blood lead levels ≥ 15 mcg/dL,
- medical evaluation for children with confirmed BLL ≥ 20 mcg/dL, and
- environmental investigation and remediation for all children with confirmed blood lead levels ≥ 25 mcg/dL, as well as those persistently elevated (15 to 24 mcg/dL) for more than six months.

Research and experience have shown the burden of lead poisoning is not equally distributed among children in the United States. The prevalence of BLLs requiring individual follow-up is low in some populations and geographic locations. A series of community-level interventions, such as health fairs and day care screenings, can be utilized by cities and towns with high-risk populations to prevent lead poisoning. Locations designated as low-risk also are encouraged to take measures to increase public awareness of lead poisoning. Interventions may include surveillance to determine the scope of the problem, public awareness campaigns and prevention education.

OVERVIEW OF THE EFFECTS OF LEAD

There is no biologic function or need for lead. There is no such thing as a "normal" lead level, only that level which we are willing to tolerate.

Lead is a toxic substance that poses a variety of dangers for humans. Young children and the developing fetus, particularly are at risk. It damages the central and peripheral nervous systems, the kidneys and the body's ability to regulate vitamin D. Lead negatively affects the formation of red blood cells. Very high levels of lead can cause seizures, coma and death. If a child has been exposed to high levels of lead, he or she may suffer severe mental retardation. When counseling parents, it is recommended that the rare instances of seizures and/or death be carefully explained that, while this situation rarely happens, it is a remote possibility. Even at lower levels of exposure, a child can suffer from developmental delay, lower IQ, hyperactivity, learning disabilities, behavioral problems, impaired hearing and stunted growth. Compounding the problem of lead poisoning is the fact that children who have elevated blood lead levels early in their lives may have no symptoms, which means that parents can be unaware of the condition.

While young children's proximity to the floor and their frequent hand-to-mouth behavior make them more likely to ingest or inhale lead, other factors also increase a child's risk of lead poisoning. For example, when an equal amount of lead is ingested, a child's body will absorb more of it than an adult's body. When a child also has an iron deficiency, lead is more easily absorbed from the gastrointestinal tract. Children have more trouble than adults in sequestering lead in the bones, so a larger fraction of any lead that might be present in the body is available to a child's targeted organs. A child's developing brain and central nervous system are more susceptible to the toxic effects of lead. Many of these effects are irreversible.

Blood lead levels as low as 10 mcg/dL do not cause distinctive symptoms but may be associated with decreased intelligence and slower neurobehavioral development in the form of cognitive and language deficits. Many other effects can begin to occur at these low blood levels. The effects of lead on hearing acuity have no apparent threshold.

Research indicates that lead in pregnant women can cross the placenta, affecting children even before they are born. For example, maternal cord blood lead levels of 10 mcg/dL to 15 mcg/dL appear to be associated with reduced gestational age, reduced birth weight, decreased stature and inability to maintain steady posture.

SOURCES OF LEAD

Lead-based paint and lead-contaminated dust remain the primary sources of lead exposure for children.

Nationwide, lead is present in approximately 74 percent of all private housing units built before 1978. Housing built before 1950 is even more likely to have interior lead-based paint. Lead paint dust is a significant and much more absorbable source of lead because children can swallow it by chewing or sucking dusty toys and fingers. Lead dust can be inhaled. Lead in dust increases when older paint is disturbed.

Other sources of lead are less prevalent; however, several low level sources together can accumulate significantly. Lead can be found in water, soil, imported cans, some colored print, occupations, hobbies and other sources.

A list of occupations and hobbies found to carry a potential for exposure to lead in Illinois and elsewhere is listed on the Assessment Questionnaire in Appendix B. Such exposure represents a risk not only to the individual, but also to members of their family. Good hygiene must be observed to avoid bringing lead dust into the home. It is important to note that the list is not complete. Most persons working in an industry using lead are aware of their lead exposure; however, they may be unaware of the risks to the young children in their family. Individuals are often not aware of the risk of exposure associated with hobbies.

Lead in water is a less frequent source. Lead can be in pipes and the solder that connects them. Water from a hot water tap should not be used for drinking or food preparation. The cold water tap should be flushed for several minutes each morning before any water is consumed.

Lead in soil also can cause poisoning. Lead has been deposited in soil from leaded gasoline, lead paint dust and industries using lead. Food grown in city gardens may be contaminated with lead from the soil. Children's outside play areas may be contaminated with lead from air pollution and paint from the outside of buildings. Ground covering (grass, rock, bark, etc.) should be placed in areas close to houses or buildings where loose soil is present so that children will not find loose paint chips or soil that might contain lead.

Lead solder is no longer used in the processing of canned foods in the United States; therefore, the lead in food has been dramatically reduced. Imported food products may contain lead since foreign manufacturers continue to use lead and lead solder in cans. It is important to transfer the food from opened cans into glass or plastic containers immediately. Metal cans with dented seams should be discarded without opening. Some bread wrappers and colored newspaper type are printed with lead-based paint. Bread wrappers/bags should not be turned inside out and reused. Other sources of lead include gasoline, poorly glazed ceramic dishes, herbal medicines and folk remedies. The most common herbal medicines containing lead are presented below with a brief description.

Mexican-American community

Azarcón	bright orange powder also known as Rueda, Coral, Maria Luisa, Alarcon and Liga
Greta	yellow powder

Both Azarcón and Greta, which are almost 100 percent lead, are given for “empacho” (intestinal illness). Any amount is poisonous to children and adults.

Hmong community

Pay-Loo-ah	red powder given for rash or fever, also called pejlum or PeLua
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Asian-Indian community

Ghasard	brown powder given as an aid to digestion
Bali Goli	round, flat, black bean dissolved in “grip water” and used for stomachache
Kandu	red powder used to treat stomachache

Arab-American community

Kohl (Alkohol) powder used as a cosmetic eye make-up and applied to skin infections and the navel of a newborn child, also called Tiro and Surma

Chinese community

poying Tan	
Mai Ge Fen	clamshell powder
Xyoo Fa	used as a medicine

Children who have traveled to South or Central America or Mexico are potentially at higher risk for lead poisoning. The use of products imported from Asian countries or use of these products during travel to Asia may increase the risk of exposure. Cosmetic products are a primary source of lead in these countries.

ASSESSMENT AND SCREENING

The primary goal of lead poisoning assessment and screening is to identify symptomatic or asymptomatic children and to intervene as quickly as possible to reduce their blood lead levels. **Most cases identified will be asymptomatic.**

One- and two- year-old children should be considered the highest priority for assessment and screening since identification of lead exposure at that age holds the greatest potential for preventing further exposure and central nervous system impairment.

In Illinois, Public Act 87-175 requires every physician or health care provider to assess all children 6 months through 6 years (84 months) of age for lead poisoning, in accordance with guidelines and criteria set forth by the American Academy of Pediatrics. Older children may also be screened by physicians or health care providers. Revisions to the law require identification of geographic areas within the state as high or low risk.

A risk assessment map was developed using 1990 census data for each ZIP code and applying the following criteria:

- A) total number of residents living at or below the poverty level;
- B) the age of housing, especially housing built before 1960.

Children living in low-risk areas are assessed using a newly revised risk assessment questionnaire (see Appendix B). A positive response to any one of the questions requires that a blood lead test be performed to complete the screening process. Children residing in high-risk ZIP codes (see Appendix B) still need blood lead testing to adequately screen for lead poisoning. Targeting allows screening and prevention activities to be tailored to the community conditions. In general, universal screening should continue in high-risk communities. For some high-risk children, routine screening may not be sufficient. Children with the highest risk of poisoning may need screening as often as every two to three months, especially in the summer. A list of potential situations is listed on the following page.

Revisions to the Illinois statute on lead screening (P. A. 87-175) in August 1995 called for the designation of high- and low-risk areas in the state. Those children living in areas determined to be low-risk can be assessed by a health care provider using the risk assessment questionnaire. Children with positive responses to any portion of the questionnaire will be considered high risk and will need a blood lead test. Children residing in high-risk ZIP codes must receive blood lead testing. Because all children are at risk for lead poisoning, it is recommended that all children be assessed. Those children at highest risk for lead poisoning, however, remain the top priority for blood lead screening. The revisions also increase the ages for assessment through age 6 (84 months). Laboratory directors are now expected to report all blood lead levels, including those between 0-9 mcg/dL.

The definition of lead poisoning is a blood lead level greater than or equal to 10 mcg/dL. **The screening test of choice is a blood lead measurement. Capillary specimens can be used for screening purposes but only with the understanding that diagnostic blood lead levels must be measured on venous samples.** Capillary specimens can be contaminated by lead-containing dust from a child's finger. Contamination of capillary specimens can be minimized if proper collection techniques are followed. Please refer to Appendix E of the *Guidelines for the Detection and Management of Lead Poisoning for Physicians and Health Care Providers*, January 1996.

**Indicators that Place
Children at High Risk for Lead Poisoning**

- 1. Children with signs and/or symptoms compatible with lead poisoning such as loss of appetite, abdominal cramps, constipation, anemia, apathy, lethargy or periodic vomiting.**
- 2. Children with signs/symptoms or laboratory results consistent with iron deficiency anemia or sickle cell anemia.**
- 3. Children who have previously had an elevated lead level, even if it has returned to an acceptable level in the interim.**
- 4. Children living in a building where a lead hazard has been found, even if in another apartment.**
- 5. Children who live in, have ever lived in or are frequent visitors to housing built before 1960, especially homes that are in poor repair or are being renovated.**
- 6. Children who have siblings, housemates or frequent visitors with known lead toxicity.**
- 7. Children whose parents or other household members participate in a lead-related occupation or hobby (refer to questionnaire in Appendix B).**
- 8. Children who live near hazardous waste sites or solid waste incinerators where lead is a major pollutant or near a lead smelter or processing plant (refer to questionnaire in Appendix B).**
- 9. Children with a history of pica and/or accidental ingestion of any nonedible item.**
- 10. Travel to South or Central America or Mexico.**
- 11. Exposure to herbal medicines and folk remedies (refer to list on page 4).**

Lead Poisoning Assessment and Screening Schedule

Ideally, all children should be assessed for lead poisoning. Those children at highest risk for lead poisoning, however, are a top priority for screening. **Children who are 1 or 2 years of age should be considered the highest priority for assessment and screening.** The following is the suggested assessment and screening schedule for children. In general, children who have capillary blood levels ≥ 10 mcg/dL should have venous confirmation of these levels.

1. All children between 6 and 84 months of age should receive, as part of routine well-child care, a risk assessment to determine potential environmental exposure to lead. It is recommended that providers use a structured risk assessment process such as the risk assessment questionnaire and ZIP code map to determine the risk status of the child (Appendices A and B).
2. Children living in low-risk ZIP code areas should be assessed for their risk of lead exposure. Those with a positive response to any question on the risk assessment questionnaire should have BLL screening and confirmatory testing as detailed below. If the child's risk assessments are negative at 1 and 2 years of age, or if one or both assessments are positive but screening BLLs are <10 mcg/dL, then yearly assessments may be stopped (refer to algorithm on page 9). The need for further assessments (and possible blood lead screenings) during well-child visits should be based on changes in risk factors or in the environment.
3. Children living in high-risk ZIP code areas need to be screened using a blood lead test at 1 and 2 years of age. It may be appropriate to conduct an initial screening at 6 months of age. Children with elevated screening tests should have follow-up testing consistent with the schedule below. The need for additional testing is based on screening and follow-up test results.

If the child's blood lead screening tests are <10 mcg/dL at 1 and 2 years of age, yearly screening may be stopped unless changes in the environment or other risk factors indicate otherwise.

If the first blood lead test is 10 mcg/dL or greater but the follow-up blood lead level is <10 mcg/dL, the child should be rescreened at 2 years of age. If the follow-up blood lead level (BLL) is <10 mcg/dL at 1 year of age and the screening or follow-up BLL is <10 mcg/dL at 2 years of age annual screening may be stopped, unless there is reason to suspect a significant increase in lead exposure as noted in the above paragraph (refer to algorithm on page 9).

- Follow-up testing for BLL ≥ 10 mcg/dL
 - Children with screening test results between 10 mcg/dL to 19 mcg/dL should have follow-up venous tests in three months.
 - Those with screening test results of 20 mcg/dL to 44 mcg/dL should have follow-up venous BLL tests within one week.
 - Children with screening test results of 45 mcg/dL to 59 mcg/dL should have follow-up venous tests within 48 hours.

Lead Poisoning Assessment and Screening Schedule (Continued)

- Those with results 60 mcg/dL to 69 mcg/dL should have follow-up venous tests within 24 hours.
- Children with screening test results of 70 mcg/dL or greater should have immediate follow-up venous tests as emergency laboratory tests.

These guidelines apply whether the initial screening was capillary or venous. 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 test sooner than indicated above (refer to algorithm on page 9).

Recommendations for further screening and follow-up are based on the venous (confirmatory) blood test result. 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 screening 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.

4. Every child with at least one follow-up BLL ≥ 10 mcg/dL should receive yearly assessment through 6 years of age (84 months), in addition to appropriate case management. More frequent testing should be done if there is reason to believe the child may have a change in exposure as a result of moving or other factors.

If a child has a follow-up BLL ≥ 10 mcg/dL, an attempt should be made through careful history-taking to ensure that there are no obvious high-dose sources of lead that must be addressed. If the child's follow-up BLL is ≥ 15 mcg/dL, the child should receive anticipatory guidance in the form of educational brochures and handouts. Children with a follow-up BLL ≥ 20 mcg/dL should receive medical management or referral to other practitioners experienced in the treatment of lead poisoned children.

5. Children through 6 years of age who have never received blood lead screening, but who are living in high-risk ZIP codes, should be screened at least once; a child with an elevated BLL should have follow-up testing consistent with the schedule. Children of this age whose initial test is less than 10 mcg/dL do not require further testing. Children through 6 years of age who live in low-risk geographic locations and who have never had blood lead screening should be assessed for lead exposure risks at least once and tested if the assessment suggests risk for significant lead exposure.
6. 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.

CHART

Initial Management Based on the Follow-Up Venous Test

Follow-up venous blood test

<10 mcg/dL - Rescreen (high-risk zip code) or reassess (low-risk zip code) at next Well-Child visit, unless the child is over the age of 3 years and has had at least 2 BLLs <10, with no change in the status of housing or potential exposure.

10-14 mcg/dL -

1. Take a careful history to determine obvious sources of lead that must be addressed
2. Provide education, social services as needed
3. Repeat BLL in six months, until the child is over the age of 3 and has had at least 2 BLLs <10, with no change in the status of housing or potential exposure
4. Consider referral to Local Health Department for Public Health Nurse follow-up (pp. 23-25)

15-19 mcg/dL -

1. Take a careful history to determine obvious sources of lead that must be addressed
2. Provide education, social services as needed
3. Repeat BLL in 3 months
4. Consider referral to Local Health Department for Public Health Nurse follow-up (pp. 23-25)
5. If 2 or more BLLs have occurred in this range, an environmental investigation may be conducted

20-39 mcg/dL -

1. Provide medical evaluation and treatment **within 10 working days** (pp. 14-21)
2. Refer to Local Health Department for Public Health Nurse home visit and environmental inspection
3. Provide education, social services as needed
4. Monthly BLL and evaluation of clinical status

40-69 mcg/dL -

1. Provide medical evaluation and treatment **within 48 hours** (pp. 14-21)
2. Refer to Local Health Department for Public Health Nurse home visit and environmental inspection, to be completed **within 5 working days**, or sooner, if possible
3. Provide education, social services as needed

≥ 70 mcg/dL -

1. Provide medical evaluation and treatment **IMMEDIATELY. THIS IS A MEDICAL EMERGENCY.** (pp. 14-21)
2. Refer to Local Health Department for Public Health Nurse home visit and environmental inspection, to be completed **within 24-48 hours**
3. Provide education, social services as needed

OVERVIEW OF MEDICAL MANAGEMENT

(For comprehensive details of medical follow-up and treatment, refer to the *Guidelines for Detection and Management of Lead Poisoning for Physicians and Health Care Providers*, January 1996.)

POST-CHELATION

When chelation is terminated, blood lead levels should be monitored frequently until sources of lead exposure have been identified and addressed.

PREGNANT WOMEN

At present, there is insufficient clinical knowledge or experience with any chelating regimen(s) to recommend treating pregnant women or women of childbearing age who have an elevated BLL. Until further clinical research is carried out, including toxicokinetic, experimental studies of the maternal-fetal unit and sequential measurements of maternal bone lead concentrations during pregnancy, no recommendations can be made. Women of childbearing age and pregnant women who have blood lead levels above 10 mcg/dL should receive environmental assessments to identify and eradicate sources of excessive lead exposure. Education on preventing further exposure, good nutrition and housekeeping information should be provided.

BREASTFEEDING WOMEN

Recent studies indicate that there is little or no transfer of lead to the infant in breast milk even when the mother has a blood lead level of > 40 mcg/dL.

DELEGATE AGENCY RESPONSIBILITIES

Local health departments contract with the IDPH to serve as delegate agencies. These agencies provide assessments and screenings for lead poisoning prevention services, medical management and, in some counties, environmental investigations for children with elevated blood lead levels. They provide these services for all children residing in their geographic boundaries, whether care is provided by the agency or a private practitioner. The agency may choose to coordinate these services with other existing programs or to conduct assessment and screening clinics as part of community outreach activities.

INTEGRATION OF SERVICES IN THE LOCAL HEALTH DEPARTMENT

Assessment and screening for lead poisoning in young children are not activities to be conducted independent of or in isolation from other health related activities. Integration of lead testing as part of a comprehensive primary pediatric care program is highly encouraged (refer to *Guidelines for Well-Child/Primary Pediatric Care in Local Health Departments*, April 1996). Many local agencies have incorporated lead testing into existing WIC programs, immunization programs, pediatric primary care and family case management. HealthWorks, the health program for DCFS wards, also encourages lead assessment and screening.

The child can be assessed or screened for lead poisoning at the initial visit. In the event that the child has already tested positive for lead poisoning, counseling the parent or guardian on proper nutrition, housekeeping, hygiene practices and the importance of subsequent screenings can begin. Children who need a referral to a primary care provider should be provided that service. The IDPH brochures titled "Get the Lead Out" are helpful in instructing the parent or guardian of the child on ways to reduce lead exposure (further information on case management, education and education materials is located below, on page 33 and in Appendix C).

PARENTAL CONSENT FORMS AND COUNSELING

Prior to lead screening, health department staff should obtain a signed parental consent form. In some instances, such as WIC and immunization clinics, language regarding lead testing may be added to a health care consent form. If children are going to be screened as a group, such as a Head Start class, educational materials and consent forms should be sent home prior to the screening date. Parents must complete and return the consent form.

Parents should receive information on how their children may be exposed to lead, why good nutrition is important and what the lead screening blood collection procedure involves. This includes an explanation of the registration procedure for the laboratory, use of a technician skilled in pediatric blood sampling techniques and the patient's right to request services of additional personnel to obtain the specimen. Parents should receive the blood test result with an explanation of what it means for their child.

The procedure should be explained to the child in simple, non-threatening terms. A calm, quiet atmosphere away from other activity in the laboratory or clinic may be helpful. Preparing all necessary equipment prior to bringing the child into the room for specimen collection is another useful technique.

When referrals to other agencies or health care providers are necessary, the parent or guardian should sign an “Authorization to Release Information” consent form to see that proper confidentiality is maintained. (See sample consent forms in Appendix D.) Agencies using Cornerstone may use the release of information form generated by the system.

CASE FOLLOW-UP ACTIVITIES FOR DELEGATE AGENCIES

Section 845.25 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 ≥ 15 mcg/dL.

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. A referral for primary care to a physician or other health care provider also may be indicated. The interview must be performed by a public health nurse or under the supervision of a public health nurse. Lead poisoning prevention services 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 counsels the parent or guardian on the need for confirmatory and/or subsequent blood lead tests. The public health nurse should provide the parent or guardian with information about lead poisoning, including its effects on young children, sources of lead and ways to mitigate these hazards in order to prevent further elevation of the child's lead levels. The main topics for education are nutrition, good hygiene practices and housekeeping tips to prevent further exposure. Refer to the appropriate environmental person for information on appropriate techniques for remodeling or renovating older houses or facilities.

3) Provide case management appropriate for the BLL

At confirmed blood lead levels 10 to 14 mcg/dL. Children with blood lead levels in this range are in a border zone. The margin of error is ± 5 mcg/dL on levels below 15 mcg/dL. The adverse effects of blood lead levels of 10 to 14 mcg/dL are subtle and are not likely to be recognizable or measurable in the individual child. It is important to make sure that these children's blood lead 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.

At confirmed blood lead levels 15 to 19 mcg/dL. Children with venous blood lead levels 15 mcg/dL to 19 mcg/dL need more careful follow-up. Children with blood lead levels in this range may be at risk for a decrease in IQ and other subtle effects. The effects of lead at these levels are 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. The family

should be given educational and nutritional counseling including brochures from the "Get The Lead Out" series. If the blood lead level persists in the 15 mcg/dL to 24 mcg/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 39 mcg/dL. Interview the parent or guardian of the case for purposes of collecting, verifying or completing the required surveillance information. Follow-up by a public health nurse and environmental investigation (for levels 25 mcg/dL and above) should begin within 10 working days. Most of these children will not be hospitalized, and since allowing exposure to continue might lead to further increases in blood lead levels, the environmental investigation and case follow-up should be conducted as quickly as possible. A "Public Health Nurse Home Lead Investigation" form (see samples on pages 17-21) should be completed and referrals made for medical management and environmental investigation as noted below. Referrals for developmental screening, hearing screening, and nutrition and prevention counseling should be made. 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 and food high in iron and calcium; and 5) resources for further information. The environmental investigation should be complete, so lead hazards can be reduced. 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 is done monthly or as indicated.

At confirmed blood lead levels 40 to 69 mcg/dL. Children with confirmed venous blood lead levels of 40 mcg/dL to 69 mcg/dL require faster action. Case follow-up and environmental investigation should begin within five working days and should include the same components as listed for children with levels of 20 mcg/dL to 39 mcg/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 \geq 70 mcg/dL. Children with confirmed blood lead levels at or above 70 mcg/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 to 48 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.

- 4) **Refer the parent or guardian of the case for medical treatment when appropriate.** The *Guidelines for the Detection and Management of Lead Poisoning 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 845.26 of the Lead Poisoning Prevention Code, March 1995.) 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 IDPH regional office or to the Department's Division of Environmental Health at 217-782-3517. Referrals for environmental inspections should be made using STELLAR reports. Any instances where test results were not imported via STELLAR should be reported to the Department's Division of Health Assessment and Screening at 217-782-0403.

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

1. A child with a confirmed BLL at or above 25 mcg/dL.
2. A child with a persistently high (STELLAR event code PSTHI) blood lead level. Persistently high is defined as the performance of two or more blood tests during the six-month period with all confirmed results in the 15 mcg/dL to 24 mcg/dL range.
3. A child with a confirmed BLL at or above 15 mcg/dL, whose physician requests an inspection (STELLAR event code ENVPH) to determine if the child should be removed from the dwelling or residential building due to a lead hazard.

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

PUBLIC HEALTH NURSE HOME LEAD INVESTIGATION

It is advised that a home visit be performed for all children with confirmed blood lead levels of 15 - 19 mcg/dL. All children with confirmed blood lead levels greater than or equal to 20 mcg/dL must have a home visit.

The home visit is performed by or under the supervision of a public health nurse. The specific purposes of the visit are to—

- a. provide the parent(s) or guardian(s) with information regarding the child's status;
- b. provide the parent(s) or guardian(s) with information regarding undue lead absorption;
- c. assess the condition of the child, as well as the condition of his/her environment;
- d. assess the child's nutritional status and provide counseling;
- e. instruct the parent(s) or guardian(s) as to follow-up procedures and to set up specific appointments as needed;
- f. provide information to the case manager;
- g. initiate appropriate referral to a physician;
- h. initiate referral for environmental investigation;
- i. provide information on hazard reduction; and
- j. evaluate if proper action by parents has been taken.

The “PHN Home Lead Investigation” form on the next pages should be completed during the home visit. The environmental inspector and the child’s physician should receive copies of the home lead investigation.

The first PHN Home Lead Investigation form (pg. 18-19) contains the minimum information required to be collected by the nurse at a home visit. The second PHN Home Lead Investigation form (pg. 20-22) contains all of the required questions plus a few extra useful questions in a more spacious layout. The more spacious form may be used in place of the more compact two-page form. One or the other is expected to be in the case file. The Medical Event Codes form (pg. 23) was designed to assist the nurse in communicating activities to the data entry staff. Nursing and environmental activities are required to be entered into STELLAR; however, the form is optional.

CHILDHOOD LEAD POISONING PREVENTION PROGRAM

Illinois Department of Public Health
PHN Home Lead Investigation

<p>Date _____</p> <p>Child's Name Last First MI</p> <p>Date of Birth _____ Male ____ Female ____</p> <p>Phone Number _____ How Long _____</p> <p>Address _____</p> <p>Rent ____ Own ____</p> <p>Landlord _____ Address _____</p> <p>Previous Addresses _____ How Long _____</p> <p>Ethnicity: Caucasian/Black/American Indian/Asian/Hispanic/Other</p> <p>Where does child spend most time away from home?</p> <p>Day Care ____ Head Start ____ Nursery School ____</p> <p>Babysitter ____ Relative/Friend ____</p> <p>Name _____</p> <p>Address _____</p> <p>Phone _____</p> <p>Has child lived for more than one month in another place?</p> <p>Yes ____ No ____</p> <p>Where _____</p> <p>Frequently Visited Addresses</p> <p>_____</p> <p>_____</p> <p>_____ How often _____</p> <p>Relationship _____</p> <p>Phone Number _____</p> <hr style="border: 1px solid black;"/> <p>Physician _____ Medicaid No. _____</p> <p>Address _____</p> <p>Health Insurance Co. _____ Policy No. _____</p> <p>Risk Class ____ PbB ____ Hematocrit ____</p> <p>Date of Classification _____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Symptoms*</th> <th style="width: 15%;">Initial Visit Date</th> <th style="width: 15%;">Follow-up Date</th> </tr> </thead> <tbody> <tr><td>Diarrhea</td><td></td><td></td></tr> <tr><td>Constipation</td><td></td><td></td></tr> <tr><td>Vomiting</td><td></td><td></td></tr> <tr><td>Stomachache</td><td></td><td></td></tr> <tr><td>Loss of Appetite</td><td></td><td></td></tr> <tr><td>Weight Loss</td><td></td><td></td></tr> <tr><td>Sleeplessness</td><td></td><td></td></tr> <tr><td>Difficulty Getting to Sleep</td><td></td><td></td></tr> <tr><td>Loss of Motor Functions</td><td></td><td></td></tr> <tr><td>Difficulty Concentrating</td><td></td><td></td></tr> <tr><td>Loss of Recently Acquired Skills</td><td></td><td></td></tr> <tr><td>Unusual Behavior</td><td></td><td></td></tr> <tr><td>Headache</td><td></td><td></td></tr> <tr><td>Irritability</td><td></td><td></td></tr> <tr><td>Weakness</td><td></td><td></td></tr> <tr><td>Restlessness</td><td></td><td></td></tr> <tr><td>Tiredness</td><td></td><td></td></tr> <tr><td>Dizziness</td><td></td><td></td></tr> <tr><td>Fainting</td><td></td><td></td></tr> <tr><td>Staggering Gait</td><td></td><td></td></tr> <tr><td>Clumsiness</td><td></td><td></td></tr> <tr><td>Convulsions</td><td></td><td></td></tr> <tr><td>Paralysis</td><td></td><td></td></tr> <tr><td>Blindness</td><td></td><td></td></tr> <tr><td>Joint Pains</td><td></td><td></td></tr> <tr><td>Other</td><td></td><td></td></tr> <tr><td>HX of:</td><td></td><td></td></tr> <tr><td>Anemia</td><td></td><td></td></tr> <tr><td>Sickle Cell Anemia</td><td></td><td></td></tr> <tr style="background-color: #cccccc;"><td></td><td></td><td></td></tr> <tr style="background-color: #cccccc;"><td></td><td></td><td></td></tr> </tbody> </table>	Symptoms*	Initial Visit Date	Follow-up Date	Diarrhea			Constipation			Vomiting			Stomachache			Loss of Appetite			Weight Loss			Sleeplessness			Difficulty Getting to Sleep			Loss of Motor Functions			Difficulty Concentrating			Loss of Recently Acquired Skills			Unusual Behavior			Headache			Irritability			Weakness			Restlessness			Tiredness			Dizziness			Fainting			Staggering Gait			Clumsiness			Convulsions			Paralysis			Blindness			Joint Pains			Other			HX of:			Anemia			Sickle Cell Anemia								
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* Check all symptoms as they are mentioned in discussion of child's health.

Are there pregnant women in household? _____

No. other children in household _____

No. under 6 years _____

Name	DOB	Pb/Symp.	Relationship

1. Pica Tendencies

Does the child chew/suck on nonfood substance? _____

Which of the following does he/she suck/chew on?

Magazines, newspapers, advertising circulars _____

Furniture _____ Windowsills _____ Doors _____

Railings/moldings _____ Toys _____

Is he/she a thumb/finger sucker? _____

Does he/she use a pacifier? _____

2. Sleeping Area

Is there loose paint on nearby walls or ceiling that could fall into the child's bed? _____

Does crib or furniture show teethmarks? _____

Is child's bed located near a window exposed to inside/outside sources of lead? _____

Does windowsill show teethmarks? _____

3. Food Preparation and Eating Areas

Is any paint peeling from ceiling or walls in the food preparation or eating areas? _____

Are there windows in the food preparation or eating areas that cause lead dust as they are opened and closed? _____

4. Eating Habits

How often does your child eat each day? _____

(Count snacks and meals)

How often does your child eat meat? _____

What type of meat does your child eat? _____

How often does your child eat dried beans, peas? _____

How often does your child eat peanut butter? _____

How often does your child drink milk? (# times/day _____)

What kinds of foods does your child eat every day? _____

Is your food stored in cans or pottery? _____

Is food eaten from cans or pottery? _____

Does your child take a bottle? _____

If so, when? _____

What do you put in the bottles? _____

Does your child take vitamin supplements? _____ Type _____

Do you use hot tap water for drinking or cooking? _____

5. Play Habits

Where in the house does the child play? _____

Does the child like to hide and play quietly? _____

Where? _____

What does he/she do when playing? _____

Is there any paint/plaster in these areas? _____

Does child play with painted or metal toys? _____

6. Play Environment

Is there any area where child is during day/night with noticeable vapors, fumes, dust or odors? _____

Where does he/she play outside? _____

Does he/she put dirt, plants, rocks, etc., in mouth? _____

Does he/she play in a cellar or basement? _____

7. Observation of Dwelling Unit

Interior surface: Paint Wallpaper Paneling

Is paint peeling from walls or ceiling? _____

Where? _____

Is plaster exposed? _____

Where? _____

Housekeeping practices

_____ Good

_____ Moderate

_____ Poor

Overall condition of house

_____ Good

_____ Moderate

_____ Poor

8. Employment/Hobbies

Where does father work outside of home? _____

What sort of work does he do? _____

Where does mother work outside of home? _____

What sort of work does she do? _____

What sort of hobbies are people in the home involved in? _____

DATE REFERRED FOR ENVIRONMENTAL INSPECTION

COMMENTS _____

_____, R.N., P.H.N.

_____ Date

**CHILDHOOD LEAD PREVENTION PROGRAM
ILLINOIS DEPARTMENT OF PUBLIC HEALTH
PHN HOME LEAD INVESTIGATION**

Date: _____

Child's Name _____ D.O.B. _____ M ____ F ____

Parent's Name _____ Phone _____

Address _____ City _____ Zip _____

How long at this residence? _____ Rent ____ Own ____ Alternate Phone _____

Landlord Name _____ Address _____ Phone _____

Previous Addresses _____ How long? _____

Frequently Visited Address _____

Does the child spend time at: Daycare ____ Headstart ____ Preschool ____ Babysitter ____ Relative/Friend ____

Name, Address, and Phone _____

Physician _____ Medicaid Number _____

Address _____ Phone _____

Health Insurance Company _____ Policy Number _____

Test Date _____ PbB _____ Hematocrit _____

A. FAMILY ASSESSMENT

1. Number of other children in the home _____ Number under six _____

2. Are there pregnant women in the household? _____ Trimester _____

Pregnant women/children	DOB/age	Relationship	Lead tests
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Where does the father work? _____

Type of work: _____

4. Where does the mother work? _____

Type of work: _____

5. Hobbies of parents or relatives _____

B. CHILD'S HEALTH STATUS AND HISTORY

1. Child's health is: Good ____ Fair ____ Poor ____
2. Does the child exhibit any of the following symptoms? (Circle those that are present)

Diarrhea	Constipation	Vomiting
Stomachache	Loss of Appetite	Weight Loss
Severe restlessness	Insomnia	Headache
Loss of motor functions	Diff. concentrating	Irritability
Weakness	Restlessness	Tiredness
Dizziness	Fainting	Clumsiness
Staggering gait	Convulsions	Paralysis
Blindness	Hyperactivity	Joint pains
Decrease hearing	Hx anemia	Speech change
Unusual behavior	Loss of recently acquired skills	Other

C. PICA TENDENCIES

1. Does the child chew or suck on non-food substances? ____ If so, what:
Magazines ____ Newspapers ____ Advertisements ____ Furniture ____
Windowsills ____ Doors ____ Railings/moldings ____ Toys ____ Other ____
2. Is the child a thumb/finger sucker? ____ Use a pacifier? ____ Nail biter? ____
3. Where does the Parent/Guardian think the lead poisoning may be caused from? _____

D. SLEEPING AREAS

1. Is there loose paint on nearby walls or ceiling that could fall into the child's bed? _____
2. Does the crib or furniture show teeth marks? _____
3. Is the child's bed near a window exposed to inside/outside sources of lead? _____
4. Does the windowsill show teeth marks? _____

E. FOOD PREPARATION AND EATING AREA

1. Is any paint peeling from ceilings or walls in the food preparation or eating areas? _____
2. Are there any windows or doors in the food preparation area that cause lead dust? _____
3. Do you use hot tap water when preparing food or bottles? _____
4. Do you store or eat food in or from cans or pottery? _____
5. Do you use glazed dishes or dishes made in a foreign country? _____

F. EATING HABITS

1. How many meals a day does the child eat? _____
2. How many snacks? _____
3. How often does your child eat or drink the following foods every day or week?

_____ Meat	_____ Eggs	_____ Peanut Butter
_____ Milk	_____ Puddings	_____ Yogurt
_____ Hot dogs	_____ Ice cream	_____ Lunch meats
_____ Snack chips	_____ Snack cakes, etc.	
_____ Dried beans	_____ Cheese	
4. What kinds of food does your child eat EVERY day? _____

5. Does your child drink from a bottle? _____ If so when? _____

What do you put in the bottles? _____

6. Does your child take a vitamin? _____ With or without iron? _____

G. PLAY HABITS AND ENVIRONMENT

1. Where inside the house does your child play? _____

2. Does the child hide and play quietly? _____ Where? _____

3. Where does the child play outside? _____

4. Does he or she put dirt, plants, rocks, etc. in mouth? _____

5. Does the child play with painted or metal toys, or antique toys? _____

6. Does the child play in the basement? _____ Finished or not? _____ Concrete floor? _____

7. Is there any place that the child is during the day or night with noticeable vapors, fumes, dust or odors?

8. Do you have pets? _____ Are they allowed in the house? _____

9. Is there a garage on the property? _____

10. Are there mini-blinds in play or sleep area? _____

H. OBSERVATION OF DWELLING UNIT

1. Interior surface: Paint _____ Wallpaper _____ Paneling _____

2. Is paint peeling or chipping from walls or ceiling? _____ Is plaster exposed? _____

If so, where? _____

3. Is the house in a high traffic area or near an industry i.e., foundry, lead smelter, battery recycling facility?

4. Any renovations occurring? _____

5. Housekeeping practices: Good _____ Moderate _____ Poor _____

6. Overall condition of house: Good _____ Moderate _____ Poor _____

Nurse Signature

Date

Date: _____

Referral Date: _____ Case # _____

CODE

Nurse/Case Manager	Date
--------------------	------

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Lead poisoning cases are determined through results of blood lead tests provided by health care providers. Information about test results that have been reported to the Illinois Childhood Lead Poisoning Prevention Program (CLPPP) is sent to each delegate agency at least weekly for import into STELLAR. Paper reports listing newly confirmed cases (≥ 15 mcg/dL) reported to the CLPPP are forwarded to the delegate agencies on a weekly basis. These reports are only as accurate as the data reported.

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

The U.S. Centers for Disease Control and Prevention (CDC) developed case-management software, STELLAR (Systemic Tracking of Elevated Lead Levels and Remediation), which is available to local health departments at no charge. It was developed for local program case management and is user-friendly. Delegate agencies are required to use the system; it is strongly recommended that local health departments who are not delegate agencies also use STELLAR.

Training in the use of STELLAR is provided to delegate agency staff by the Childhood Lead Poisoning Prevention Program and may be available to non-delegate agencies, if time and space permit. Call 217-782-0403 if you are interested in STELLAR training or in receiving a copy of the STELLAR software. The Illinois Department of Public Health also supports a help-line that can provide STELLAR assistance (800-942-0024).

This system includes a master file for each child that contains screening, environmental inspection, medical evaluation and treatment information. It is important to share this information with all those providing the child with services.

STELLAR stores laboratory test data (screening and follow-up), case follow-up information and dwelling inspection and abatement information. All information is linked through child and address identifiers. Built-in reports include case summary information, lists of children due and overdue for blood tests and address schedules for inspection and abatement. Letters to parents and health care providers notifying them of the results also are available from the system. STELLAR also produces a quarterly report summarizing screening, case identification, inspection and abatement activities. This information is provided and automatically scheduled based on the confirmatory venous tests.

STELLAR was developed using Clarion Professional Developer database software. Minimum hardware requirements for STELLAR are an IBM compatible personal computer with 640K of RAM and a 10 megabyte hard disk. However, a minimum of a "386 class" IBM compatible computer is recommended. It should be remembered that more space will be needed as data files grow. More powerful systems are necessary for very large childhood lead poisoning prevention programs.

Opening Cases with Capillary Tests -- If two capillary draws of 15 mcg/dL or above occur in a 90-day period, the agency may consider initiating services for the child. In these circumstances, a case may be opened manually. If there are questions on the appropriateness of opening a case, consult with the Regional Health Assurance Consultant to determine the proper action to be taken. Please note that STELLAR will not automatically schedule these cases in the same manner as confirmed cases.

REPORTING REQUIREMENTS

Delegate agencies are required to use STELLAR so that reports can be provided to the Illinois Childhood Lead Poisoning Prevention Program and the CDC as needed. The following reports are required on a routine basis:

- Quarterly (due 15 days after the end of the quarter)
Delegate agencies must provide quarterly reports to the Illinois Childhood Lead Poisoning Prevention Program summarizing activities for the quarter. The report must include the STELLAR program evaluation CDC quarterly report and a short summary of activities that could be shared with other delegate agencies and the CDC. Instructions for running this STELLAR report are available on request by calling the CLPPP at 217-782-0403.
- Monthly (due by the 21st of each month)
Delegate agencies must provide monthly STELLAR reports to the Illinois Childhood Lead Poisoning Prevention Program. These contain details of the case follow-up and environmental inspection activities undertaken by each delegate agency and will be used to create quarterly summaries of activities. They will also be used to determine payment for environmental inspections and court appearances as described on page 27. Instructions for running these STELLAR reports are available on request by calling the CLPPP at 217-782-0403.

MEDICAL RECORD

A file should be kept on each child with an elevated lead level, along with the information used as input into the STELLAR system. This medical chart should include a copy of the child's lead level from the laboratory, the PHN (public health nurse) Home Lead Investigation form, all consent forms and a documentation and/or progress report sheet. In addition, the chart should contain a current full case report from STELLAR. It is recommended that copies of all communication sent to the parent/guardian and physician also be included.

In an integrated system, it is expected that information regarding lead assessment, screening and education be documented in the record keeping system. Referrals to a health care provider, environmental inspector, WIC and other service providers should be noted in the record. All of this information will assure that proper case follow-up has been done and will provide information for legal purposes, if needed.

CLOSING CASES

A policy for closing cases when children move, are lost to follow-up and/or have reached 7 years of age with a stable BLL should exist within each agency (see sample policy, Appendix E). The Department recommends making three attempts to contact the family, either 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 United States Postal Service marked as undeliverable can serve as the final contact.

Documentation of these attempts, including the certified letter, should be maintained in the medical record as the agency's proof of attempt to provide service.

The guidelines for physicians and health care providers define successful therapy as that which produces BLL of 20 mcg/dL or less. Children with a prior elevated BLL requiring chelation may have a BLL that falls in the range of 20 mcg/dL, thus establishing a new baseline level. Other children with chronic low-level exposures who have received education intervention may plateau at a level in the mid teens. Children above age 7 who appear to meet these criteria may be considered by the agency for discharge from the lead program.

STELLAR will recognize and reestablish any cases that have been retested and have elevated levels following closure of a case.

IDPH MONITORING

STELLAR data exported by LHDs is used to generate quarterly reports. These are provided to LHDs to assist staff in running their lead programs. IDPH staff also review the reports as part of their delegate agency monitoring. Each report contains five tables covering the quarter and the fiscal year to date:

- 1) screening rates throughout each agency's jurisdiction and in high-risk areas
- 2) percentage of children with an elevated blood level of ≥ 15 mcg/dL during the quarter who received some type of follow-up activity
- 3) percentage of children with an elevated blood level of ≥ 20 mcg/dL during the quarter who received a home nursing visit
- 4) percentage of children with an elevated blood level of ≥ 20 mcg/dL during the quarter who received some type of medical action
- 5) percentage of children with an elevated blood level of ≥ 25 mcg/dL during the quarter whose homes were inspected or mitigated during the quarter.

Consolidated site visits are another way the Department monitors the efficiency and effectiveness of individual lead programs. These visits involve an on-site review of both medical and environmental records, policies, procedures and STELLAR. Commendations and recommendations are made at the end of the visit.

REIMBURSEMENT FOR LEAD POISONING SERVICES

There are three primary sources of reimbursement for childhood lead screening and case management services: Illinois Department of Public Aid, Illinois Department of Public Health and clients themselves. Reimbursement for a limited office visit may be obtained when the child returns for follow-up services, including a rescreen and a complete and comprehensive EPSDT examination. DCFS wards who are involved in the HealthWorks (HWIL) program are automatically eligible for Illinois Department of Public Aid (IDPA) services.

Illinois Department of Public Aid

Agencies must be accepted IDPA providers prior to submitting reimbursement forms. Call the Illinois Department of Public Aid at 217-524-7306 for a provider number. For assistance in filling out MCHPC reimbursement forms, contact the Bureau of Comprehensive Services Medical Switchboard at 217-782-5565 or 217-782-5567. Remember that Medicaid-enrolled clients cannot be charged additional fees.

Reimbursement for Laboratory Services

Blood specimens for Medicaid eligible children must be submitted to the Illinois Department of Public Health's laboratory. Analysis costs are not charged to providers who supply valid Medicaid numbers. IDPA will not reimburse any other laboratory for blood lead analysis of Medicaid children. 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 Childhood Lead Poisoning Prevention Program, relieving providers of this responsibility. Delegate agencies who perform environmental inspections also receive free analysis of paint, dust and water samples.

A scan form must be completed and sent with each sample; this contains all the information that must be reported to the Childhood Lead Poisoning Prevention Program. Call the CLPPP at 217-785-5246 for information on signing up as a provider and using the scan forms.

Environmental Inspections Reimbursement

IDPA will reimburse for two inspections (epidemiological surveys) per Medicaid-eligible child. Payment structures may fluctuate with each fiscal year. To obtain current information, call 217-782-0403.

Case Follow-up Reimbursement

IDPA will reimburse for collections of blood samples for lead screening, EPSDT visits and Denver Developmental tests for Medicaid-eligible children. The health insurance claim form DPA 2360 should be completed and submitted to IDPA for payment. Contact 217-782-5565 or 217-782-5567 to obtain payment forms or contact the CLPPP staff at 217-782-0403 for more information.

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 jurisdiction. 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 sample be analyzed by the Illinois Department of Public Health laboratory. The monies received are intended to be used to provide medical case-management services to the children in each delegate agency's jurisdiction. In addition, the family case management contract allows flexibility for reimbursement for case management services for these high-risk clients.

Health departments, rural health clinics and federally qualified health clinics (FQHC) who indicate that children are indigent (family income < 185 percent federal poverty level and who are not eligible for Medicaid) are not charged for analysis.

Environmental Actions Reimbursement

IDPH will pay for allowable inspections performed by delegate agencies with a contract to provide environmental services. Determination of whether an inspection (survey and report) is allowable is made by checking the STELLAR data reported to the CLPPP by the delegate agency. Monthly reports should be sent to CLPPP as in the section on record keeping systems.

The levels at which inspections are reimbursable, the STELLAR codes to be used and the rates of payment may fluctuate with each contract. Contact the CLPPP at 217-782-0403 for current reimbursement information.

Legal Action Reimbursement

When a court appearance is needed to enforce compliance with inspection, mitigation or abatement requirements, the Illinois Department of Public Health will reimburse the delegate agency. Delegate agencies are required to enter legal information into STELLAR for reimbursement to be approved for payment. The events allowed for reimbursement, the STELLAR codes required and the reimbursement rates may fluctuate with each contract. Contact the CLPPP at 217-782-0403 for current information.

Private Pay Clients

A local health department may charge for the services it provides to non-Medicaid clients, if that service is not being reimbursed from another source or if the reimbursement is insufficient to cover costs. Fees should be determined by each local health department.

Laboratory Services Reimbursement

A fee of \$25 is assessed for each blood lead analysis for all clients not Medicaid-eligible or indigent (\leq 185 percent federal poverty level). A scan form must be completed and sent with each sample; this form contains all the information that must be reported to the Childhood Lead Poisoning Prevention Program. Call the CLPPP at 217-782-5246 for information on signing up as a provider and using the scan forms.

COORDINATION OF CARE WITH OTHER AGENCIES

SCHOOL DISTRICTS

Collaboration with school nurses and other school personnel occurs frequently. These individuals may be the initial contact for parents regarding the need for lead assessment and screening. It is important to develop and maintain open lines of communication with school health personnel.

School nurses are not expected to enforce the Lead Poisoning Prevention Act and lack of a lead assessment or screening is not exclusionary. The school nurse should check that documentation is on the physical assessment form from the physician or health care provider. Upon reviewing the school physical form at the time of registration, if no documentation is presented, the nurse should ask if lead testing or a questionnaire has been done. If the answer is “no,” the nurse should refer the parent to a health care provider or local health department for lead assessment or screening. This is an opportune time to educate parents about the importance of lead screening. Local health departments and physicians are being encouraged to make a copy of the completed questionnaire for the parent or guardian to bring during registration. However, the decision to implement this strategy is left to the discretion of the practitioner.

Local health departments in some counties send personnel to schools to assist with registration by reviewing the immunization forms or contract with the school district to provide health services. In those agencies, consideration should be given to include a review for assessment and screening for lead poisoning.

ILLINOIS DEPARTMENT OF CHILDREN AND FAMILY SERVICES (DCFS)

Lead program staff may interact with DCFS in three situations: day care licensing, reporting for suspected medical neglect or the HealthWorks (HWIL) program.

As stated in P.A. 87-175, Section 7.1 of 77 Ill. Administrative Code 665—

Child care facilities must require lead blood level screening for admission. 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 through 6 years provide a statement from a physician or health care provider that the child has been risk assessed, as provided in Section 6.2. if the child resides in an area defined as low risk by the Department or screened for lead poisoning as provided for in Section 6.2. if the child resides in an area defined as high-risk. This statement shall be provided prior to admission and subsequently in conjunction with required physical examinations.

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

Lead screening shall be completed for children age six and below in accordance with the rules of the Illinois Department of Public Health (77 Ill. Adm. Code 665).

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

Contact with the family services agency may be initiated by local health department personnel, physicians or other health care providers when there is suspected medical neglect. 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, in most of these cases, a report is 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 HealthWorks clients. HWIL is a collaborative effort of the Departments of Public Health, Human Services and Children and Family Services. The purpose of HWIL is to ensure that state wards (birth - age 21) in the custody of DCFS receive comprehensive, quality health care services. New wards taken into custody are to receive a comprehensive health evaluation based on EPSDT standards developed by the American Academy of Pediatrics. Blood lead screening is one of the laboratory tests recommended by these standards. DCFS wards often fall in a high-risk group for the following reasons: wards tend to live in numerous locations; the environmental status of wards before custody is often unknown; and wards may live in high-risk areas of the state.

HWIL program staff are encouraged to work with the DCFS ward's primary care physician, substitute care giver and DCFS caseworker to assure that those who are 6 years of age or younger receive a lead poisoning assessment and screening. HWIL staff should assist with lead poisoning education efforts for DCFS caseworkers and the substitute care giver if needed.

COMMUNITY INTERVENTION

Local health officials have traditionally carried out all or most of the lead poisoning prevention activities in a community. They should collaborate with physicians, educators and 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 for creating safe and affordable housing and providing poor people in the community 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 so joint prevention strategies can be adopted and carried out.

To be successful, community-level intervention requires four types of activities:

- 1. Surveillance and risk assessment: Determining populations at risk and areas where the most exposures are occurring.**
- 2. Outreach and education: Informing health care providers, parents, day care providers, early childhood educators, property owners and other key audiences about lead poisoning prevention.**
- 3. Infrastructure building: Creating the resources needed for a successful program of risk abatement.**
- 4. Hazard abatement: Abating the hazards of lead paint, dust and soil, particularly in high-risk buildings and neighborhoods.**

Outreach and Education—Targeting for High-Risk ZIP Codes

Outreach programs can be carried out through brochures, pamphlets and other written materials; local news media; public meetings; school programs; physician awareness activities and community service organizations. The most important targets for outreach and educational programs are local public officials, parents, health-care providers, property owners, day care providers and early childhood educators living in high-risk ZIP codes.

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 proved helpful in some neighborhoods. Mobile screening programs located at grocery stores or shopping centers may be successful.

Off-site clinics, free-standing clinics and emergency care centers are other options for distributing information and encouraging screenings. One local health department initiated a link with a nearby WIC site and increased referrals for screening six-fold.

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.

Parent education should include information on the effects of lead on children and the need for assessment and screening of children at regular intervals. Parents should be informed about simple primary prevention steps they can take, including proper nutrition, housekeeping and hygiene measures. Inform the parents about risk factors that place children at high-risk for lead poisoning. Such outreach efforts can be targeted to individual parents or to certain parent groups.

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 a property owner is buying a property or seeking financing for major renovations. In addition, property owners should be given written material that explains safe lead removal.

Day care providers and early childhood educators should be given information about lead poisoning and its effects. Parents can aid in this process by informing teachers about their children's history, so teachers can make better informed decisions about the need of additional screenings.

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 Childhood Lead Poisoning Prevention Program at 217-782-0403. Toxicon, a toxicology consortium combining the resources of the Rush Poison Control Center, the Cook County clinical toxicology section and the University of Illinois Drug Information Center, can be contacted for patient related calls at 312-942-5969. State and regional telephone numbers for contact persons with the Childhood Lead Poisoning Program are identified in Appendix G. 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.

APPENDIX A
MAP

**ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF FAMILY HEALTH
CHILDHOOD LEAD RISK ASSESSMENT QUESTIONNAIRE**

The lead risk assessment questionnaire may be used to complete the lead assessment component of the well-child visit. The assessment is recommended annually for all children from 6 months through 84 months of age.

<p>Medical evaluation of a patient to determine lead exposure requires knowledge of the child's geographic location and living conditions in combination with the history and physical exam. The first question in this process is—</p> <p>DOES THE CHILD, AGE 6 MONTHS TO 84 MONTHS, LIVE IN A HIGH-RISK ZIP CODE AREA (REFER TO ZIP CODES ON REVERSE SIDE)? (If “N” continue with additional questions) Y N</p> <p>ASSESSMENT OF ALL OTHER CHILDREN <u>Circle the appropriate response.</u></p> <p>Does the child, age 6 months to 84 months—</p> <p>Live in, have ever lived in, or regularly visit a home or building (school or day care) built before 1960? Y N</p> <p>Live in or regularly visit a home or building built before 1960 that has recently or is currently under renovation or remodeling? Y N</p> <p>Live with a person whose occupation or hobby involves exposure to lead? Y N</p> <p>Receive or have ever received herbal medicines or home remedies (see guidelines)? Y N</p> <p>POPULATION BASED ASSESSMENT QUESTIONS (Use at physician's discretion)</p> <p>Does the child live close to an active lead smelter, battery recycling plant, lead mine, and/or other industry likely to release lead into the environment? Y N</p> <p>Does the family use imported or glazed ceramics for food preparation or, storage or as dinnerware? Y N</p> <p>Has the child ever been to Central or South America or to Mexico where lead exposure could potentially occur? Y N</p> <p>CHILDREN WITH A POSITIVE RESPONSE TO ANY ONE OF THE QUESTIONS NOTED ABOVE WILL NEED BLOOD LEAD TESTING TO COMPLETE THE SCREENING PROCESS. DUE TO SIMILAR ENVIRONMENTAL EXPOSURE, CHILDREN WITH SIBLINGS WHO HAVE ELEVATED BLOOD LEAD LEVELS SHOULD HAVE BLOOD LEAD TESTING.</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left; padding: 5px;">CHILD'S NAME</th> <th style="text-align: left; padding: 5px;">DATE</th> </tr> <tr> <td colspan="2" style="text-align: center; padding: 5px;">POSSIBLE METHODS OF EXPOSURE</td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> OCCUPATIONS Auto repairers Battery manufacturers or repairers Brass/copper foundry Bridge reconstruction workers Chemical/chemical preparation manufacturers Construction workers Gas station attendants Glass manufacturers Industrial machinery equipment operators Lead smelters and refiners Lead miner Migrant farm worker Plastics manufacturers Plumbers, pipe fitters Police officers Printers Radiator repairers Rubber products manufacturers Steel welders and cutters </td> <td style="vertical-align: top; padding: 5px;"> HOBBIES Car or boat repair Casting lead figures (toy soldiers, etc.) Furniture refinishing Home remodeling Jewelry making Lead soldering (e.g., electronics) Painting Preparing lead shot, fishing sinkers, bullets Reloading cartridges Stained glass making Target shooting at firing ranges </td> </tr> <tr> <td style="vertical-align: top; padding: 5px;"> ENVIRONMENTAL Ceramicware/Pottery Lead crystal Lead paint Lead painted homes Lead soldered cans (imported) Proximity to lead related industries Renovating/remodeling older homes Soil/dust near industries, roadways Use of water from leaded pipes </td> <td style="vertical-align: top; padding: 5px;"> OTHER Asian cosmetics Folk remedies (greta, azarcón, pay-loo-ah, ghasard, hai ge fen, bali goli, kandu, kohl, x-yoo-fa, mai ge fen and poying tan) Imported food in lead soldered cans </td> </tr> <tr> <td style="padding: 5px;"> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%; padding: 5px;">HIGH-RISK ZIP CODE</td> <td style="padding: 5px;">Blood test mandatory. 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PHYSICIAN/HEALTH CARE PROVIDER

DATE

Illinois Department of Public Health Pediatric Lead Poisoning High-risk ZIP Code Areas

Adams	Champaign	61353	61543	60967	61350	Marion	Moultrie	R o c k	Union	62921
62301	n		61544	60968	61354	62801	61911	Island	62926	62948
62312	61810	Douglas	61563	60970	61358	62849	61925	61201	62961	62949
62324	61816	61911			61364	62882	61928	61239	62998	62951
62325	61820	61913	Gallatin	Jackson	61370		61937	61265		
62338	61845	61930	62867	62927	61371	Marshall	61951	61282	Vermillion	Winnebag
62339	61849	61941	62869	62942	61377	61358			60932	o
62343	61851	61942	62954	62950		61369	Ogle	St. Clair	60942	61077
62346	61862	61956	62979	62994		61377	61006	62040	60960	61101
62348	61868					61421	61021	62201	60963	61102
62351	61956	DuPage	Greene	Jasper	Lawrence	61424	61030	62203	61810	61103
62359		None	62016	62432	62415	61537	61031	62204	61812	61104
62365	Christian		62027	62448	62417	61540	61039	62205	61831	
	62075	Edgar	62031	62459	62439	61541	61054	62206	61832	Woodford
Alexander	62510	61917	62044	62475	62460	61570	61061	62207	61833	61545
62913	62531	61924	62050	62480	62466		61064	62220	61844	61561
62914	62540	61932	62078			Mason	61102	62225	61846	61570
62961	62546	61933	62081	Jefferson	Lee	61567		62240	61857	61738
62962	62550	61940	62082	62810	61006	62617	Peoria	62257	61865	61760
62993	62557	61944	62092	62846	61021	62633	61529	62264	61876	
	62568	61949		62851	61031	62644	61569	62289	61883	
			Grundy	62864	61042	62664	61602			
Bond			60474		61057	62682	61603		Saline	Wabash
62086	Clark	Edwards			61064		61604	62917	62863	
62246	62420	62476		Jersey	62031	61353	61605	62930		
62262	62442	62806	Hamilton	62817	62052	Massac	62910	62935		Warren
	62477	62818		62844	62063	Livingston	62953	62946	61412	
Boone	Clay	62863	62859		60921		Perry		61415	
None	62426		62860	Jo Daviess	60929	62960	62237	Sangamon	61417	
	62824	Effingham	62887	61053	60934	McDonou	62831	62539	61447	
Brown	62839	62414		61074	61319	gh	62884	62702	61453	
62324	62847	62426	Hancock	61085	61333		62888	62703	61462	
62353	62858		62311	61087	61364	61420			61478	
62375		Fayette	62316		61740	61422	Piatt			
62378		62262	62318	Johnson	61741	61438	61813	Schuyler	61452	Washingt
	Clinton	62471	62321	62908		61471	61830		62319	on
Bureau	62801	62418	62330	62909	Logan	61475	61913		62344	62271
61314		62458	62334	62912	62541	62326			62367	62801
61322	Coles	62471	62348	62923	62543	62367	Pike	62624	62808	
61323	61938	62838	62367	62967	62548				62831	
61328		62857	62380	62972	62635	McHenry	62312			
61329	Cook	62880			62643	None	62314			
61337	A l	62885	Hardin	Kane	62666		62323		Wayne	
61338	Chicago		62919	60505	62671	McLean	62332		62823	
61342	ZIP codes		62931				62340		62824	
61344	60022		62955	Kankakee	Macon	61701	62343		62837	
61345	60093		62982	60901	62501	61720	62345	Scott	62842	
61346	60153			60912	62521	61724	62352	62050	62843	
61349	60201		Henderson	60913	62522	61728	62355	62082	62851	
61361	60202	Ford	61418	60915	62523	61730	62356	62610	62878	
61362	60305	60919	61454	60919	62537	61731	62357	62621	62886	
61368	60402	60933	61460	60944	62544	61737	62361	62694	62895	
61374	60406	60946	61469	60954	62551	61770	62362			
61376	60411	60952	61471	60964			62363	Shelby	White	
61421	60426	60957	61476		Macoupin	Menard	62366	61928	62817	
	60472	60959	62330	Kendall	62002	62664	62370	61951	62820	
Calhoun	60501	60960		None	62009	62673	62372	61957	62821	
62006	60513	60962	Henry		62033			62431	62827	
62013	60546	61773	61234	Knox	62056	Mercer	Pope	62414	62834	
62036	60666		61235	61401	62063	61231	62938	62444	62835	
62045			61238	61414	62069	61260	62944	62465	62844	
62047	Franklin	62805	61258	61434	62079	61412		62510	62861	
62053	62427	62812	61274	61436	62085	61442	Pulaski	62550	62862	
62065	62433	62822	61277	61458	62088	61465	62926	62553	62867	
62070	62449	62874	61413	61467	62093	61466	62941	62565	62869	
62355	62451	62884	61434	61474	62649	61476	62956		62887	
62361	62454	62896	61443	61485	62672	Monroe	62963	Stark		
	62464	62983	61490	61489	62674	62295	62964	61421	Whiteside	
	62466	62999		61572	62676		62970	61449		
			Iroquois		62683	Montgom	62973	61479	61014	
	Cumberland	Fulton	60912	Lake	62685	ery		61483	61071	
Carroll	62415		60918	60040		Putnam		61491	61081	
61014	62420	61427	60924	60064	Madison	62032	61340		61243	
61046	62428	61431	60931	60085		62049		Stephenso	61252	
61051	62432	61432	60938			62051	Randolph	n	61261	
61053	62435	61441	60942	La Salle		62056	62237	61013	61270	
61064	62468	61459	60945	60470		62075	62242	61032	61277	
61074		61477	60951	60518		62076	62272	61039	61283	
61285	De Witt	61484	60953	61301	62048	62089	62277	61050		
	61727	61501	60955	61321	62060	62094		61089	Will	
		61520	60956	61325	62074		Richland		60432	
Cass	DeKalb	61524	60960	61341	62084	Morgan	62425	Tazewell	60433	
62617	60550	61531	60964	61342	62087	62082	62450			
62618	60556	61542	60966	61348	62095	62631	62868	61564	Williamso	
						62694		61734	n	

Illinois Department of Public Health
"QUESTIONARIO PARA LOS NIÑOS CON RIESGO DE ENVENENAMIENTO CON PLOMO"
" DE 6 MESES HASTA 6 AÑOS"

NOMBRE DEL NIÑO/A	FECHA
--------------------------	--------------

Para ser llenado por los padres o guardian legal:

- | | |
|--|---|
| 1. ¿Cual es el código postal donde vive su niño/a? | <div style="text-align: right; margin-bottom: 5px;">No</div> <div style="display: flex; justify-content: space-around; font-size: small;"> Si No Sé </div> |
| Por favor enciere en un círculo sus respuestas: | |
| 2. ¿Su niño/a ha vivido o visitado con regularidad una casa, edificio, guardería, escuela o el hogar de algun familiar, que haya sido construida antes de 1960? | S N ? |
| 3. ¿Su niño/a ha vivido o visitado con regularidad, alguna casa construida antes de 1960, a la que le hayan hecho alguna renovacion o remodelación ? | S N ? |
| 4. ¿Su niño/a vive con algún adulto, del cual su trabajo o pasatiempo tenga que ver con el manejo del plomo? (Vea la lista al final de este cuestionario) | S N ? |
| 5. ¿Usted o alguien de su familia le ha dado a su niño/a remedios caseros como los nombrados a continuación: greta, azarón, ghasord, pay-loo-ah, o hai-ge-fen? | S N ? |
| 6. ¿Usted prepara la comida, la guarda, o la come en trastes de barro o cerámica que no hayan sido fabricados en los Estados Unidos? | S N ? |
| 7. ¿Su niño/a ha vivido o visitado México, Centro América o Sudamérica? | S N ? |
| 8. ¿Su niño/a vive o ha vivido cerca de una fundidora de plomo, una planta recicladora de baterías, o alguna otra fàbrica que pueda — producir o desechar plomo? | S N ? |
| 9. ¿En que año piensa que su casa haya sido construida? (por ejemplo: en los años 50, o antes de la Segunda Guerra Mundial)? | S N ? |

TRABAJOS

Reparación de autos
 Fabricante o reparador de baterias de carro
 Fundicion de latón o cobre
 Reconstrucción de puentes
 Químico, o en la preparación de productos químicos
 Trabajador de la construcción (albanil)
 Encargado en una gasolinera
 Fabricante de vidrio
 Operador de equipo y maquinaria industrial
 Fundiciones de plomo o refinerías
 Minero en minas de plomo
 Trabajador en una fábrica plasticos
 Plomero o cortador de tubos
 Oficial de policía
 Trabajador de imprenta
 Reparación de radiadores
 En la fabricación de productos de hule
 Soldar y cortar acero

OCUPACIONES PASATIEMPOS

Reparación de auto y barcos
 Fundición de figuras de plomo
 Acabado de muebles
 Remodelación de casas
 Fabricacion y reparación de Joyería
 Soldador con plomo (aparatos electrónicos)
 Pintor
 Preparación de municiones, plomadas para pescar, y balas y de plomo
 Recargado de cartuchos y balas
 Vitrales y emplomados (venta — nas de Iglesia)
 Practica de tiro al blanco

APPENDIX C

Education Information and Samples

Local health department personnel are strongly encouraged to make education an important component of their lead poisoning prevention programs. Outreach programs are one way to accomplish this. Participation in health fairs and other community activities is another means of providing education to the public.

Education is required for the families of children identified with high lead levels. 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 community awareness. Hygiene, housekeeping and nutrition are the three key components of education programs in the home.

The following handouts are suggested for use by local health department personnel. They may be adapted to meet the needs of each agency and the clients/community served. Similar material may currently be in use by staff members in health departments throughout the state.

Appendix G contains contact numbers for other agencies that provide education materials pertinent to lead poisoning prevention.

**ILLINOIS DEPARTMENT OF PUBLIC HEALTH
LEAD DUST CLEAN-UP AND CONTROL**

2 Tablespoons Automatic Dishwashing Soap
1 Gallon Warm Water in a bucket
Rags for cleaning
Mop
Latex Gloves

1. **Pick up** all clothes and toys; throw away all trash. Start where your child spends the most time.
2. Put on Gloves.
3. **Mix** soap in the bucket of water.
4. **Wipe** off window sills, wells, molding and baseboards with soap.
5. **Rinse** well with clean water and clean rags.
6. **Mop** floors, steps, corners and under furniture.
7. **Rinse** well with clean warm water.
8. Repeat steps 6 and 7 as often as needed.
9. **Flush** all dirty water down the toilet.
10. **Wash** all toys, blankets, sheets, rugs, curtains, etc.

Notes:

1. Always Wet Sweep before mopping by spraying the floor with above cleaning solution or water, and then sweep.
2. Do Not use bleach with soap.
3. Steam Clean or throw away old carpet. (Steam cleaners can be rented at grocery or hardware stores.) This step may need to be done more than once.

CLEAN UP CHECK LIST

CHORES (regular)					
LIVING ROOM	DO	DONE	FAMILY ROOM	DO	DONE
vacuum/sweep			vacuum/sweep		
dust			dust		
window sills			windows		
mop					
BEDROOMS			KITCHEN		
wash toys			wash dishes		
change sheets			floors		
counters			counters		
vacuum/sweep			stove		
mop			refrigerator		
baseboards			scrub sinks		
window sills			window sills		
CHORES (general) MISC.			BATH		
vacuum furniture			scrub sink		
carpet cleaned			tub		
curtains and blinds			toilet		
ceiling fans			floors		
dust knickknacks			windows		

ALWAYS WET DUST

ILLINOIS DEPARTMENT OF PUBLIC HEALTH

PERSONAL HYGIENE

- Wash hands and face before snacks, meals and bedtime.
- Keep fingernails short and clean.
- Keep hands away from mouth and face.
- Wash toys often in warm, soapy water.
- Store food in plastic, glass or stainless steel containers.
- Children should not eat food dropped on the floor or ground.
- Always eat at a clean table.
- Only use cold water for drinking and cooking.
- Store outdoor toys away from painted buildings.
- Wash bedclothes, sheets and pillow covers often.
- Use “diaper wipe” type cleaners so the child can clean his/her own hands.
- Put a small amount of dish soap in a plastic soap bottle, add water and set on the side of the bathtub for the child to wash his/her own hands.
- Use a vinyl tablecloth or mat on which a child can sit and watch TV or play.
- Do not allow children to chew or suck on toys.
- Keep children away from windowsills, doors, railings and furniture with paint that is peeling, chipping or fading.
- Adults should shower and change before coming home if they work at a job where they are exposed to lead.
- Wash baby bottles, pacifiers and “sippy” cups when they have been dropped on the floor.



**ILLINOIS DEPARTMENT
OF PUBLIC HEALTH
CHILDHOOD LEAD POISONING
PREVENTION PROGRAM**



LEAD POISONING AND YOUR CHILD

LEAD MISCONCEPTIONS	LEAD REALITY
<ul style="list-style-type: none">* My child cannot get lead poisoning.* Poisoning comes only from eating paint chips.* Nature will clean our environment of lead.* My child does not act sick, so everything must be OK.* What you cannot see, cannot hurt you.* An unborn child cannot get lead poisoning.* The toys that I played with are safe for my child.* Foods do not contain lead.* Lead poisoning is rare and only a big city problem.* Lead at my job cannot effect my child at home.	<ul style="list-style-type: none">* Any child can be poisoned if in contact with lead.* Lead may be found in house dust, pottery, fishing sinkers, mini blinds, etc.* Lead will not dissolve.* Lead poisoning may produce vague or no symptoms.* Lead dust or fumes may enter the lungs.* Lead crosses the placenta.* Old toys may contain lead in the metal or paint.* Lead in garden soil or poorly glazed ceramic containers may contaminate food.* Lead poisoning may be found anywhere lead is present.* Lead may be brought home on clothes, shoes or in your hair.

Reprinted with revisions; originally created by Kankakee County Health Department.

APPENDIX D

SAMPLE RELEASE

**ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF HEALTH ASSESSMENT AND SCREENING
CHILDHOOD LEAD POISONING PREVENTION PROGRAM**

CONSENT TO RELEASE INFORMATION

I, _____, parent or guardian of _____, a minor child, hereby authorize the Illinois Department of Public Health to release my child's blood lead level 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 or facsimile of this consent is as valid as the original, even though such copy does not bear my original signature.

Signed: _____ Date: _____

Witness: _____

APPENDIX D

SAMPLE RELEASE

**ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF HEALTH ASSESSMENT AND SCREENING
CHILDHOOD LEAD POISONING PREVENTION 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 Childhood Lead Poisoning Prevention Program with diagnostic and treatment information related to lead poisoning for the above named 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 or 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 - SAMPLE POLICY

POLICY FOR CLOSING A CASE - LOST TO FURTHER FOLLOW-UP OR NON-COMPLIANCE IN BLOOD LEAD TESTING

1. The nurse will notify the parent/guardian by phone/letter of a result equal to or greater than 15 mcg/dL, along with educational material and information on the need for retesting the child.
2. The nurse will contact the child's physician and/or LHD to ascertain if the child is continuing to receive services and if any testing or treatment not previously reported has been given for the elevated blood lead level.
3. Letters will be sent as follows: 1) A letter will be sent to the parent/guardian reminding them to have their child retested. The first letter will be generated from lab batch (STELLAR) and will give the next test date; 2) Subsequent letters will be either the next scheduled test date; or 3) an overdue letter generated from Stellar Reports. Copies of all letters will be kept in the child's file. A documented attempt at a home visit on levels ≥ 20 can be substituted for letter #2 or #3.
4. 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 and, if applicable, the LHD. The final letter will need to be developed by the agency, as STELLAR does not produce this type of letter.
5. 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.
6. If the certified letter is received, there is no response from the parent/guardian and the BLL is ≤ 20 mcg/dL, the case can be closed with complete documentation of events leading up to closing the case. If the child is tested later, the BLL will be imported and the case will reopen through STELLAR.
7. If the nurse feels further follow-up may be necessary (eg, $\text{BLL} \geq 20$ mcg/dL and children < 5 years of age), the case can be presented as part of a care conference with information provided by Environmental Health, Regional Health Assurance 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.

SAMPLE POLICY

FOLLOW-UP SERVICES FOR CONFIRMED ELEVATED BLOOD LEAD LEVELS

PROGRAM PROCEDURE #____

1. Provision of Follow-up Services for children with confirmed EBLs at or exceeding 15 mcg/dL.

- 1.a Children identified with a confirmed EBL ≥ 15 mcg/dL will be provided prevention services by a local health department acting as a delegate agency. Prevention services include education of parents/guardians about childhood lead poisoning--sources of lead, the effects on young children, the necessity of follow-up blood lead screenings, hazard reduction and nutrition assessment and counseling.
- 1.b Children identified with a confirmed EBL ≥ 20 mcg/dL will receive a home visit by a Public Health Nurse or health educator/advocate under the supervision of a Public Health Nurse. During the home visit, an epidemiological survey (PHN Home Lead Investigation) to identify possible lead sources in the home will be completed; a health assessment of the child to identify possible symptoms and other related health problems will be completed; and prevention services as described in 1.a will be provided. Nursing follow-up should begin within the timelines described in the *Lead Screening and Case Follow-up Guidelines for Local Health Departments*.
- 1.c The delegate agency RN will have the parent or guardian sign a consent form to release or request information on the child to the appropriate entities.
- 1.d Children identified with a confirmed EBL ≥ 20 mcg/dL will be referred to a physician for medical diagnosis and treatment, to the local health department RN, to an Early Intervention Program for infants and toddlers or to a special education early childhood program for a developmental screening.
- 1.e Children identified with a confirmed EBL ≥ 25 mcg/dL will be referred for an environmental investigation by the delegate agency.
- 1.f Children identified with a confirmed EBL ≥ 45 mcg/dL will require a high priority for follow-up and referral to physician if necessary. Nursing follow-up and environmental investigations should begin within five days of identification.

- 1.g Children identified with a confirmed EBL ≥ 70 mcg/dL will require nursing follow-up and contact with the child's physician within 48 hours. An environmental investigation should also be initiated within 48 hours.
- 1.h When children have an assigned case manager such as HM/HK or DCFS, the Public Health Nurse should collaborate in the provision of services.
- 1.i All required information will be entered into the STELLAR System to assist in tracking the child with an EBL and services provided. The delegate agency RN may be entered as case manager. When the child has a HM/HK or DCFS case manager their names may be entered in the notes. The sanitarian will be entered as investigator in the environmental area.

NOTE: A team approach should be used in providing follow-up services for children identified with a confirmed EBL. Ideally, the team should include professionals in public health providing case management, nursing follow-up and prevention services, social services and environmental services.

SAMPLE POLICY

TRANSFER OF CLPPP CASE FROM REGIONAL NURSE TO DELEGATE AGENCY

When a county health department or local health district establishes itself as a new delegate agency with the Illinois Department of Public Health Childhood Lead Poisoning Prevention Program, the following steps will take place for the transfer of information from the Regional Health Assurance Consultant who has been following the child(ren) to the appropriate individual within the newly established delegate agency.

1. The regional nurse will contact the LHD to set a date and time to meet for the transfer of the records. This may include a joint home visit if requested by the nurse in the delegate agency.
2. The Regional Health Assurance Consultant will contact the parent or guardian by telephone, mail or certified letter of the change in the program. The name of the nurse to contact in the delegate agency will be provided to the family.
3. The nurse will make a home visit to obtain a signed release from the parent or guardian allowing the release of the current record to the delegate agency. This can be done with the letter noted above and instructions for the parent or guardian to return the form if a home visit cannot be arranged. A self addressed stamped envelop should be included to facilitate the return.
4. Print a report from STELLAR regarding the case. This should include when follow-up testing is due, any follow-up letters to be sent to the parent and the current status of any home inspections.
5. Copy any other documents which pertain to the child.
6. Close case in STELLAR.

SAMPLE POLICY

Name _____

COUNSELING AND EDUCATION PROTOCOL

1. Effects on young children
2. Need for retesting
3. Sources of lead
4. Housekeeping
 - Keep toys clean
 - Have rugs or mats at entry ways
 - Remove shoes
 - If the parent/frequent visitor works in 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
 - Block windows so child cannot get near them
 - Make sure children are not in work area during mitigation
 - Don't store food in cans or ceramic pottery
 - Use duct tape or contact paper to cover peeling, chipping paint, until permanent removal can be done
 - Wash bed clothes
 - Remove all mini-blinds, if possible
 - Move furniture in front of windows with peeling, chipping paint
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
 - Wash bedclothes weekly
 - Use vinyl tablecloth or mat for the child to sit and watch TV or to play on
6. Nutrition
 - Diet high in iron, calcium and vitamin C
 - Diet low in fat
 - Eat 5-6 times per day (3 meals and 2-3 snacks)
 - Don't use hot tap water for cooking, bottles or drinking
 - Let cold water run for several minutes before using

By _____

Date _____

APPENDIX F

PREVENTION OF LEAD POISONING

“Get the Lead Out” Series and Education Programs

The Childhood Lead Poisoning Prevention 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. The Department’s Division of Environmental Health has two lead-related booklets, “Activities to Reduce Lead Exposure” and “Homeowners Lead Paint Abatement.” Another brochure containing information for renters is also available. Public health nurses and local health departments have numerous handout materials that are used during home visits and home demonstrations of good housekeeping techniques. Information can be ordered by using the form on the next page or by calling the Lead Information Clearinghouse at 1-800-545-2200, TTY (hearing impaired use only) 1-800-547-0466.

Illinois Department of Public Health central office staff and regional staff participate in a variety of education 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 program, STELLAR (Systematic Tracking of Elevated Lead Levels and Remediation), 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 two-day program includes segments on medical management, blood lead testing (including a tour of the state laboratory), environmental investigations and home visits specific for lead. Demonstrations of an XRF analyzer and STELLAR are other components of the workshops.

**ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF HEALTH ASSESSMENT AND SCREENING
CHILDHOOD LEAD POISONING PREVENTION PROGRAM
BROCHURE ORDER FORM**

535 W. Jefferson St., Second Floor
Springfield, IL 62761
217-782-0403, TTY 1-800-547-0466
Fax (217)524-2831

The **GET THE LEAD OUT** brochure series includes seven lead topics:

- The **prevention** brochure provides information on how to protect children against lead poisoning.
- The **intervention** brochure provides information on how to lower blood lead levels in children.
- The **renovation** brochure provides information on how to safely remove old paint.
- The **renter/realtor** brochure provides information for persons living in a dwelling built prior to 1978.
- **Activities to Reduce Lead Exposure** gives information on household cleaning.
- **Homeowner's Lead-based Paint Abatement Guide** discusses a variety of abatement and remediation techniques, including a list of activities which are prohibited.

To request free brochures, please complete and return. Please indicate the quantity of your order in either the English or Spanish column(s).

	ENGLISH	SPANISH
PREVENTION		
INTERVENTION		
RENOVATION		
RENTOR/REALTOR		
POSTER		
ACTIVITIES		
HOMEOWNERS		

Organization Name _____

Address _____

City/State/ZIP _____

Phone Number _____

Attention _____

Thank you for your request.

APPENDIX G

Illinois Department of Public Health
Division of Health Assessment and Screening
Childhood Lead Poisoning Prevention Program
Telephone Information

IDPH - General Lead Department	217-782-0403
IDPH - Childhood Lead Poisoning Prevention Program	217-785-9464
IDPH - Information and Referral Hotline	800-545-2200
IDPH - Childhood Lead Poisoning Prevention Clearinghouse/Education Materials	217-782-0403 TTY (hearing impaired use only) 800-547-0466
IDPH - Childhood Lead Poisoning Prevention Program Fax	217-524-2831
IDPH - Health Assurance Nursing Supervisor	312-814-1488
IDPH - Rockford Regional Office	815-987-7511
IDPH - Peoria Regional Office	309-693-5360
IDPH - Edwardsville Regional Office	618-656-6680
IDPH - Marion Regional Office	618-993-7010
IDPH - Champaign Regional Office	217-333-6914
IDPH - West Chicago Regional Office	630-293-6800
IDPH - Division of Environmental Health	217-782-3517
Cook County Department of Health/Lead Program	708-445-2530
Chicago Department of Public Health (CDPH)/ Environmental Lead Program	312-746-7821 or 7820
IDPH Lab/Springfield	217-782-6562
IDPH Lab/Chicago	312-793-4766
National Lead Information Center Hotline	800-LEAD-FYI
National Lead Information Center Clearinghouse	800-424-LEAD
Alliance to End Childhood Lead Poisoning	202-543-1147

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