Copyright Information

NTI has obtained permission from the copyright holders to reproduce certain quoted material in this document. All such material is clearly designated with the expression, “Reproduced with permission.” Trainers may not reproduce such material for any purpose without themselves obtaining permission directly from the copyright holders. All other material contained in this document may be used and reprinted by NTI Trainers for training purposes without special permission. Use of the following citation, however, is requested and greatly appreciated.

Suggested Citation


Supported in part by grant U46MC00003 from the Maternal and Child Health Bureau, Health Resources and Services Administration, US Department of Health and Human Services.
NOTE TO TRAINER

This Trainer’s Guide is part of a Toolkit intended to accompany the *Environmental Health in Child Care: Lead* Training Module. The Toolkit includes a Trainer’s Guide to leading training sessions, a Slide Presentation, and materials for participants’ packets.

For more information about using the NTI materials, please read “Guidelines for Using the NTI Curriculum Materials,” available in the “Curriculum” section of the NTI Resources Website (accessed by entering your NTI username and password at http://sakai.unc.edu).
# TABLE OF CONTENTS

PREPARATION CHECKLIST ........................................................................................................................................... 2

OVERVIEW OF TRAINING SESSION.......................................................................................................................... 3

TRAINER’S OUTLINE ...................................................................................................................................................... 4

MATERIALS FOR PARTICIPANT’S PACKET ...................................................................................................................... 26
Activity: Glossary Search Worksheet ............................................................................................................................ 27
Fact Sheet: Lead in Child Care ...................................................................................................................................... 28
Assessment of Potential Lead Problems Handout ......................................................................................................... 30
Notice of Potential Lead Contamination: Temporary Measures You Can Take Handout .................................................. 32
Recommended Actions for Prevention/Management of Lead Exposure Handout ............................................................... 33
Activity: Case Scenario .................................................................................................................................................. 35
Activity: Get the Lead Out! Action Plan .......................................................................................................................... 36
Learning Assessment ...................................................................................................................................................... 37
Learning Assessment Answer Key .................................................................................................................................. 39
Evaluation of Trainer Form ............................................................................................................................................ 40
Participant’s Packet Cover Page ..................................................................................................................................... 42
PREPARATION CHECKLIST

Curriculum Materials:
Download the following from the “Curriculum” section of the NTI Resources Website:
- Environmental Health in Child Care: Lead Training Module
- Environmental Health in Child Care: Lead Trainer’s Guide
- Environmental Health in Child Care: Lead Slide Presentation
- Training Checklists

Preparation:
- Read the Environmental Health in Child Care: Lead Training Module.
- Read the Environmental Health in Child Care: Lead Trainer’s Guide.
- Review the Environmental Health in Child Care: Lead Slide Presentation:
  - Customize slide #2 to include your name, agency, and the date of your training.
  - Print the slides as overheads or load the slide presentation onto your laptop, USB drive, or a CD. Save or print a back-up copy of the presentation as well.
- Create a participant’s packet (one per participant) per copyright guidelines:
  - Copy activities, worksheets, and the evaluation form provided in this Trainer’s Guide under “Materials for Participant’s Packet.”
  - Copy the Slide Presentation as a handout.
- On a flip chart sheet, write out the Overview of Training Session to display in the training room (you may prefer to leave off the estimated time and training technique).
- On a flip chart sheet, write out the Training Objectives to display in the training room.
- See “Training Implementation and Logistics Checklist” (located in the document titled Training Checklists) for set-up tasks to do the day of the training.
- Research state and local resources on lead. (Environmental Defense’s website http://scorecard.goodguide.com/ is an excellent resource which can be tailored to individual zip codes. County-based lead hazard reports are available online and include: a county map locating lead hazards, lead hazard indicators and comparative rankings; hot spots of lead air quality hazards, action suggestions, and links including how to locate a Qualified Lead Professional).
- Create a list of local resources for your participants and include in Participant’s Packets.
- If you plan to use the optional Introductory Activity, ask participants ahead of time to bring a photo, drawing, newspaper clipping, etc. of any item they think is a lead hazard.
- Make response cards for the Assessment Activity (one set for each small group.)
- Other: ________________________________________________________________

Equipment and Supplies:
- See “Equipment and Supplies Checklist” (located in the document titled Training Checklists) for general supplies
- Laptop, slide presentation, and LCD projector or overhead projector
- Flip chart sheet for posting Overview of Training Session
- Flip chart sheet for posting the Training Objectives
- Other: ________________________________________________________________
OVERVIEW OF TRAINING SESSION

Below is an overview of the topics covered in this session.

<table>
<thead>
<tr>
<th>Estimated Time</th>
<th>Topic</th>
<th>Training Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-15 minutes prior to session</td>
<td>Registration</td>
<td>-----</td>
</tr>
<tr>
<td>Optional</td>
<td>Introductions/Icebreaker</td>
<td>Individual / large group discussion</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Overview of Training Session and Objectives</td>
<td>Large group presentation</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Opening: Assessment</td>
<td>Large group activity</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Activity: Glossary Search</td>
<td>Individual / small group activity</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Presentation: Children and Lead</td>
<td>Large group presentation and discussion</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Presentation: Lead Exposure, Children at Risk, and Lead Hazards</td>
<td>Large group presentation</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Activity: Case Scenario</td>
<td>Small group activity / large group activity</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Closing: “Get the Lead Out”</td>
<td>Individual worksheet</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Learning Assessment</td>
<td>Large group activity and discussion</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Evaluation of Trainer</td>
<td>individual</td>
</tr>
</tbody>
</table>

**Estimated Total Time:** Approx. 1 hour and 15 minutes

---

1 Not included in total time.
2 Not included in total time. Develop activity based on participants’ training needs.
3 Add additional time if group guidelines and/or group facilitation methods need to be addressed at the beginning of the session, or if you decide to include any additional activities. For more information, see NTI’s *Building Curriculum Development and Training Skills* Training Module.
# TRAINER’S OUTLINE

## Introductions/Icebreaker

<table>
<thead>
<tr>
<th>Time</th>
<th>Optional</th>
</tr>
</thead>
</table>

### Supplies
- Tape
- Flip chart sheet

### Instructions
- Show slide 1 (not printed here) as participants enter the room. Show slide 2 (not printed here) as you introduce yourself. Show slide 3.
- Before the training, ask participants to bring with them a photo, drawing, newspaper clipping, etc. of any item they think is a lead hazard in the child care environment. Consider having some extra items on hand for participants who forgot their material.
- Ask participants to introduce themselves by sharing their name and agency and to explain the material they brought. Consider taping these on a flip chart or wall or placing them on a side table.
- If a participant brings an image that is inaccurate, explain the reason why. Reassure participants that they are not expected to know all about lead hazards and that is the reason for the session.

### Talking Points
- Let’s take a few minutes to get to know one another and to introduce the topic of lead. I asked each of you to bring a photo, drawing, newspaper clipping or other item that could be a lead hazard in the child care environment. As we go around the room, please share your name, the agency for which you work, and the item that you brought with you that relates to lead.

### For More Information
- See NTI’s *Building Curriculum Development and Training Skills* Training Module for ideas about introductions and icebreaker activities.

### Notes
# Overview of Training Session and Objectives

<table>
<thead>
<tr>
<th>Time</th>
<th>5 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Slides/overheads</td>
</tr>
</tbody>
</table>
| Supplies              | • Flip chart sheet with Overview of Training Session written on it  
                        • Flip chart sheet with Training Objectives written on it |
| Instructions          | • Direct participants’ attention to the posted Overview of Training Session.  
                        • Show slide 4 and review Training Objectives. |

## Talking Points

**Training Objectives**
- Let’s turn our attention to the Overview of Training Session, which tells us the plan for our time together.
- Now let’s look at the Training Objectives.
  By the end of the session today, I’d like you to be able to:
  - Name sources of lead in the child care environment
  - Describe the effect lead exposure has on the health of young children
  - Identify actions necessary to prevent and manage lead exposure in the child care environment

## For More Information
See NTI’s *Building Curriculum Development and Training Skills* Training Module to learn more about training objectives.

## Notes
### Opening: Assessment

<table>
<thead>
<tr>
<th>Time</th>
<th>10 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Large group activity</td>
</tr>
</tbody>
</table>

| Supplies | • Response cards (A, B, C, D, E, True, and False)  
          | • Blank sheets of paper  
          | • Markers  
          | • Assessment  
          | • Watch with second hand  
          | • Bell/clicker |

| Instructions | • Show slides 5 – 19.  
               | • Divide the large group into 2-4 smaller groups.  
               | • Give each team a set of 7 large cards. Explain that there is one card for each of the possible responses: A – E and True and False. Also give each group several sheets of blank paper and markers.  
               | • Explain that you will read aloud each question on the Assessment. Each team will have 15 seconds to decide a response (A – E, True, False, or short answer). When the 15 seconds are over, ask all teams to display the card with their answers.  
               | • Record each group’s answers on a flip chart and tell participants that you will review the correct answers at the end of the training. |

| Talking Points | • We’re going to play a short game to assess how much you already know about lead in the child care environment. First, let’s count off by 3’s to form small teams. Please move to sit with the other members of your team.  
                  | • I’m going to give each team a set of response cards. Each team will have 7 cards. Questions will be multiple choice, true/false, or short answer. If the question requires a short answer, please write your answer on the blank sheets of paper I’ve provided.  
                  | • I’m going to show a total of 14 questions. I’ll show each question one at a time. When I show the question, please decide with your group what you think the correct answer is. You will have no more than 15 seconds to decide. When 15 seconds are up, each team will display the card with their answer.  
                  | • I’ll be recording each group’s answers on this flip chart. We will review the correct answers during the learning assessment at the end of the training. |

Activity: Glossary Search

<table>
<thead>
<tr>
<th>Time</th>
<th>5 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Individual/small group activity, large group review</td>
</tr>
<tr>
<td>Technique</td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>One Glossary Search handout for each participant</td>
</tr>
<tr>
<td>Instructions</td>
<td>• Show slide 20.</td>
</tr>
<tr>
<td></td>
<td>• Ask participants to find the Glossary Search handout in their Participant’s Packet.</td>
</tr>
<tr>
<td></td>
<td>• Review the worksheet instructions: draw connecting lines between the glossary terms and the definitions.</td>
</tr>
<tr>
<td></td>
<td>• Let participants know they can work individually or with others.</td>
</tr>
<tr>
<td></td>
<td>• After 5 minutes, review the answers with the large group.</td>
</tr>
<tr>
<td>Talking Points</td>
<td>• Please find the Glossary Search worksheet in your Participant’s Packet. For this activity, you can work alone or with a partner. The purpose of the worksheet is to help you match the glossary terms and the definitions. Use a pencil or pen to draw connecting lines between the pairs. After a few minutes, we will come back together to share our work.</td>
</tr>
<tr>
<td>For More</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td></td>
</tr>
</tbody>
</table>
Presentation: Lead

<table>
<thead>
<tr>
<th>Time</th>
<th>20 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Presentation and discussion</td>
</tr>
<tr>
<td>Supplies</td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td>• Show slides 21 -34.</td>
</tr>
</tbody>
</table>

**Child Care Staff Perspective**

- In a field like environmental science where information develops rapidly and highly technical expertise is often required, an important role of the CCHC is to **mediate communication between child care staff and environmental health specialists**.

- Child care issues must be emphasized for environmental health specialists, and environmental health information may need interpretation and clarification for child care staff. The perspective of the child care caregiver/teacher with respect to environmental health issues is stated eloquently by Gratz and Boulton (1993).

**The Role of the CCHC**

- The knowledge and skills needed to be an effective Child Care Health Consultant (CCHC) can be described within five major roles, including: 1) consultation, 2) resource and referral, 3) policy development, 4) advocacy, and 5) health education.

- To mediate between child care staff and environmental health specialists in relation to the five major roles, the CCHC can provide:
  - **Consultation**: for example, the CCHC could use the tool, “Assessment of Potential Lead Problems in the Child Care Setting” and work with certified environmental health specialists when testing buildings and grounds for lead contamination.
  - **Resource and Referral**: the CCHC could contact local and state health departments to find certified lead contamination specialists in the child care center’s area, as well as locations for blood testing. The CCHC could help connect these specialists to child care staff.
  - **Policy Development**: the CCHC could ensure the child care setting has a lead abatement policy in place. If the child care setting does not, the CCHC might assist the child care staff in writing and implementing one, with the assistance of an environmental...
health specialist.

- **Advocacy:** the CCHC could inform and work with local community groups to address the exposure and treatment of lead in local child care settings.

- **Health Education:** the CCHC could stay attuned to current trends and issues in the environmental health field via contact with an environmental health specialist. The CCHC could also train caregivers/teachers to identify potential lead hazards in the child care center’s environment and provide information for caregivers and families on recognizing signs of lead poisoning.

- This training will focus primarily on providing you with the knowledge to fulfill your consultation and resource and referral role with child care staff in terms of preventing lead exposure.

**CFOC National Standards**

- In fulfilling your role, you will be relying heavily on the *Caring for Our Children: National Health and Safety Performance Standards Guidelines for Out-of-Home Child Care Programs* [CFOC] (3rd ed., 2011), a set of 686 attainable standards and recommendations intended for use by health professionals, trainers, regulators, child care staff, academics and researchers, parents, and others who contribute to the well-being of children.

- These standards, supported by the Maternal and Child Health Bureau, were developed by the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education.

**Lead-Related CFOC National Standards**

A complete list of the standards from *Caring for Our Children* that relate to lead in the child care environment can be found on the Fact Sheet in your Participant’s Packet.

The standards touch on a variety of topics, including:

- Requiring appropriate handwashing
- Ensuring the safety of all play equipment
- Keeping surfaces that come in contact with food lead-free
- Ensuring that the child care setting, including drinking water, equipment, materials, furnishings, and play areas, are free from hazards, such as lead
- Maintaining and displaying any inspection reports involving lead
For More Information

See the “The Role of the CCHC” and “Caring for Our Children National Standards (3rd ed., 2011) sections in NTI’s Environmental Health in Child Care: Lead Module.

Notes

<table>
<thead>
<tr>
<th>Talking Points</th>
<th>Children and Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Research in the 1970s and 1980s demonstrated that seemingly healthy children with elevated levels of lead had reduced intelligence, greater language difficulties, impaired hearing, reduced stature, and more attention problems and behavior disorders compared to children with normal levels (National Research Council, 1993). As a result, lead was removed from two major sources: gasoline in the mid-1970s and house paint in 1978.</td>
</tr>
<tr>
<td></td>
<td>Despite these actions, lead poisoning continues to be “one of the most common public health problems for children” (The Environmental Quality Institute, 2005, p. 1). According to the Centers for Disease Control and Prevention (CDC), approximately half a million U.S. children between the ages of 1 and 5 have elevated blood lead levels (2003).*</td>
</tr>
<tr>
<td></td>
<td>* National data on the lead levels of children under the age of 12 months are limited because testing does not often occur for this age group (Norman, 2005).</td>
</tr>
<tr>
<td></td>
<td>The figure on the next slide, “Surveillance for Elevated Blood Lead Levels Among Children --- United States, 1997—2001” created in September 2003, shows the number of children in the U.S. in 2001 with confirmed blood levels greater than or equal to 10 micrograms. <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5210a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5210a1.htm</a></td>
</tr>
<tr>
<td></td>
<td>It is important to note that the higher levels for certain states may be due to better screening and reporting efforts in those states. For example, Illinois requires all children to show the results of a blood test for lead before entering either a daycare or school.</td>
</tr>
</tbody>
</table>
Primary Source of Lead
The primary source of lead is lead paint.

Lead-based paints for houses were banned in 1978. However, the CDC estimates that “approximately 24 million housing units in the United States contain deteriorated lead-based paint and elevated levels of lead-contaminated house dust” (p. 1). Of these homes, almost 20 percent are home to one or more young children (CDC, 2004).

Thus, lead paint is still the most important lead hazard for children (AAP, 1999).

Primary Source of Lead (continued)
Lead-based paint deteriorates over time due to moisture, normal use, or disturbance during renovation projects. In fact, disturbance of lead-based paint during remodeling and renovation of older homes can pose high risks for lead exposure (HUD, 1999).

Paint flakes or chips deteriorate into dust that may be so fine it cannot be seen with normal vision. Children may ingest this dust through hand-to-mouth contact, or by breathing it.

Leaded Paint
Does this mean that if you believe you have lead-based paint on your walls you should immediately try to remove it yourself?

No. Leaded paint that is intact, encapsulated, enclosed, or otherwise completely covered with non lead-based paint or another non-lead surface does not pose a problem as long as the paint is well maintained and surfaces are kept clean. Suspected lead paint hazards should never be scraped or stripped without first consulting with a qualified lead professional who can provide an assessment and abatement plan. Removal of lead paint without proper tools and knowledge can make the hazard worse.
Risk of Lead Exposure Among Children in Child Care in Buildings/Houses Built by Year
The full extent of lead hazards in U.S. child care settings has not been addressed by environmental agencies, but one could assume that facilities in buildings constructed before 1978, and especially those constructed before 1950, present relatively high risks for exposure.

One study examined the risk of lead exposure among children at six child care settings supported by a major state university. All of the facilities had high standards for child supervision and hygiene. Five of the facilities were located in houses built before 1940, and the sixth was built in 1959. Results showed that all of the facilities had elevated levels of lead in paint, two had elevated soil lead levels, two had elevated levels in window sill dust, one had an elevated level in window well dust, and one had unsafe lead content in tap water (Weismann, Duskieker, Cherryholmes, Hausler and Dungy, 1995).

Secondary Sources of Lead
Some relevant secondary sources of lead that may add to exposure levels in the child care environment include (Schneider and freeman, 2000; AAP, 1999):

- Contaminated drinking water from lead soldered pipes in the facility plumbing
- Older and imported toys (especially those from developing countries)
- Arts and crafts materials such as chalk and paints
- Old or imported pottery
- Pewter

Lead can be ingested through dust from these objects, or through hand-to-mouth exposure.
Secondary Sources of Lead (continued)
Some additional secondary sources of lead are
(Schneider and Freeman, 2000; AAP, 1999)—
- Old or imported vinyl mini-blinds
- Older outdoor playground equipment coated with lead-based paint
- Airborne lead from nearby industries that produce lead containing materials (e.g., smelters)
- Some batteries, like those in cars and computers, contain lead. General household batteries do not.

Again, lead can be ingested through dust from these objects, or through hand-to-mouth exposure.

Secondary Sources of Lead (continued)
Some other secondary sources of lead are—
- Keys - Children can be exposed to lead through everyday items in their environment, including keys. Many keys contain lead to make them stronger. A child who plays with lead-based keys may transfer harmful lead particles to their hands or mouth. It is best never to allow children to play with keys. (California Childcare Health Program, 2002)
- Candy (from ingredients and wrappers)
- Jewelry and charms
- Painted zipper pulls or other decorations on clothes

Routes of Lead Exposure
There are two main routes of lead exposure: ingestion and inhalation.

Children are exposed to lead primarily through ingestion due to hand-to-mouth activity. As they put their fingers or other objects in their mouths, they unintentionally ingest lead particles from the dust, paint, water, or soil. Also, lead paint chips, flakes or dust themselves are especially attractive to children because they taste sweet, like candy (Michael LD., Environmental Specialist III, personal communication, Jul, 2002).

Children may also breathe lead-contaminated air or lead dust.
Women who are pregnant and have been exposed to lead can transmit the exposure to the fetus via the placenta (National Safety Council, 1995-2005. http://www.nsc.org/news_resources/resources/documents/lead_poisoning.pdf).

(Trainer: Lead a discussion with training participants around the questions on the slide.)

**Discussion Questions**

- Are there industries in your communities/regions which may increase lead exposure?
- Have you known anyone who has been exposed to lead?
- If so, what was the source of lead exposure?

**For More Information**

See the “What the CCHC Should Know” section of NTI’s *Environmental Health in Child Care: Lead Module.*

**Notes**
Presentation: Lead Exposure, Children at Risk, and Detection of Hazards

<table>
<thead>
<tr>
<th>Time</th>
<th>20 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Large group presentation and discussion</td>
</tr>
<tr>
<td>Supplies</td>
<td></td>
</tr>
<tr>
<td>Instructions</td>
<td>Show slides 35 - 48.</td>
</tr>
</tbody>
</table>

**Health Effects of Lead Exposure**

- Lead poisoning affects every system in the body.
- Lead exposure is more harmful to children when compared to adults because their bodies are still growing, thus more lead is absorbed (U.S. EPA, 2004). Additionally, a child’s brain and nervous system is more sensitive to the harmful effects of lead (U.S. EPA, 2004).

**At Lower Concentrations**

- Even at extremely low concentrations, lead exposure can affect a child's central nervous system, kidneys, and reproductive system.
- Low levels of lead are also associated with learning disabilities, behavioral problems, decreased stature and growth, and impaired hearing acuity (NSC, 1995-2005).

**At Higher Concentrations**

- At higher levels, lead exposure can cause kidney damage, coma, convulsions, and death (NSC, 1995-2005, AAP, 1999).
- Lead effects are permanent and continue to affect a child’s functioning throughout life.
### Symptoms of Lead Exposure
- Except at extreme levels, however, lead poisoning usually shows no obvious symptoms.
- Lead poisoning can only be confirmed through direct blood testing (AAP, 1999; American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care [CFOC, 3rd ed. 2011]).

### For More Information
See the “What the CCHC Should Know” section of NTI’s *Environmental Health in Child Care: Lead Module.*

### Notes

### Talking Points

#### Specific Children at Risk
Children who should be automatically screened are those who are—
- In the first and second year of life who live or are cared for in housing built prior to 1950
- Living in poverty

Other specific children at risk who should be automatically screened are those who are—
- Victims of abuse and neglect
- Immigrants, including those who are adoptees (AAP, 2003; Schneider and Freeman, 2000; CDC, 1997)
Specific Children at Risk (continued)
Children who have developmental delays (i.e., physical, oral, and/or cognitive) should also be automatically screened. Other children who should automatically be screened are those who have—

- Parents/guardians who are remodeling a house that was built before 1978
- Parents/guardians who are construction workers or are regularly exposed to lead
- A sibling or playmate who has or did have lead poisoning (AAP, 1999; Schneider and Freeman, 2000; CDC, 1997)

Screening Through EPSDT

- Because there are no symptoms at low levels and because lead poisoning can only be confirmed through direct blood testing, the American Academy of Pediatrics (AAP, 1999) recommends that children who present with certain risk factors should be automatically screened for elevated blood lead levels.
- Children on Medicaid are also required to receive a lead toxicity screening at 12 months and 24 months as part of Early Periodic Screening Diagnostic and Treatment (EPSDT). Children between the ages of 36 months and 72 months of age must receive a screening blood lead test if they have not been previously screened for lead poisoning (Centers for Medicare and Medicaid Services, 2005).

Treatment of Children with High Blood Levels

- Chelation therapy uses medication to bind heavy metals in the blood which are then excreted in the urine.
- From a public health perspective, preventing lead poisoning is especially important because treatments cannot reverse health outcomes from lead exposure.
For More Information | See the “What the CCHC Should Know” section of NTI’s *Environmental Health in Child Care: Lead Module.*

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
</table>

**Talking Points**

**Detection of Lead Hazards**

- Do-it-yourself chemical spot test kits are available at home retail centers and paint stores, but their sensitivity is limited. However, the current chemical spot test products are not recommended by the EPA or HUD (Rossiter, Vangel, McKnight and DeWalt, 2000).

- Accurate detection of lead exposure risks, however, requires the expertise of a qualified lead professional (QLP).

**Detection of Lead Hazards (continued)**

- Qualified lead professionals can perform a number of services, including a *paint inspection*, a *lead evaluation*, and a *lead hazard control service*.

- A paint inspection can inform the child care director about the lead content of every different type of painted surface in the facility. However, a paint inspection is unable to determine whether the paint is hazardous (U.S. EPA, 2004). A lead evaluation is completed to assess a facility for lead risk, while a lead hazard control service is performed to repair a facility that has a documented lead risk.
Contacting a QLP

- To locate a qualified lead professional, contact your state or local health department, or contact the National Lead Information Center (NLIC) for a list of contacts in your area. Other resources can be found on the Fact Sheet in your participant’s packet.
- Before contacting a qualified lead professional, however, the CCHC should assist the child care staff in identifying potential lead hazards.

Helpful Tools

- One way to assist the child care staff in identifying potential lead hazards is to use the assessment tool, *Assessment of Potential Lead Problems: Questions for the Child Care Staff*.
- A copy of this assessment tool is located in your Participant’s Packet.
- The purpose of this questionnaire is to assess the risk of lead exposure from the child care facilities.
- If potential lead hazards are identified during the assessment, a CCHC might use the *Notice of Potential Lead Contamination: Temporary Measures You Can Take* handout to help the child care staff know how to proceed. This handout is also in your Participant’s Packet.
- The Assessment Tool is based on the document, “*Recommended Actions for Prevention/Management of Lead Exposure in the Child Care Center*.”
- A copy is located in the Participant’s Packet and makes a handy reference during consultations with the child care staff.
Lead Hazards and Actions
Some of the recommendations in the table have to do with:

- **Age of building:** If the building was built prior to 1978, there are a number of things that should be done. The facility and surrounding soil should be tested for lead. Children should also be tested for elevated blood levels. The water should also be tested for lead. The CCHC should be contacted to facilitate the involvement of a qualified lead professional.
  - If you find out that the paint in the facility contains lead, there are a number of abatement options and interim controls to consider.
  - If you find out that the pipes in the facility contain lead, you should run the tap water for two minutes at the start of each day to flush out accumulated lead before using for cooking or drinking (AAP, 1999). You should also use only cold water for drinking and cooking (U.S. EPA, 2004).

- **Location of facility:** This means checking to see if the facility is located in a lead hazard area, for example near an industrial site or highway, etc. The CCHC can help facilitate the involvement of a qualified lead professional.

- **Furnishings:** This has to do with replacing old vinyl mini blinds that may contain lead.

- **Facility cleanliness:** The child care facility should be kept clean. When cleaning, staff should use damp mops/dust rags and a general all-purpose cleaner instead of dry dusting or sweeping as this may further disperse lead dust particles throughout the environment. When vacuuming, a HEPA (high efficiency particulate air) filter should be used. Good doormats should be installed at all doors and kept clean.

- **Personal hygiene:** This involves encouraging frequent handwashing of staff, volunteers, and children.

Other recommended actions have to do with:

- **Children’s diet:** Because foods that are rich in iron and calcium can reduce the amount of lead absorbed from the GI tract, you will want to provide children with a diet rich in iron and calcium that includes food such as spinach and dairy products.

- **Food storage:** Make sure that food or liquid is stored in containers made of glass, plastic, or stainless steel. Crystal glassware and imported or old pottery are likely to contain lead.

- **Art materials:** Check all arts and crafts materials and toys for lead content. Only art materials that clearly have the “Conforms to ASTM D-4236” label should be used, as recommended by the U.S. Consumer Product Safety Commission (CPSC, 1996).
- Toys/play equipment: Check on a monthly basis to make sure all toys and play equipment are lead-free.
- Play areas: Involve a qualified lead professional to determine whether the soil should be tested for lead. Then contact a qualified lead professional.

**Summary**

- Lead poisoning has long-term consequences for children.
- The risk of lead exposure in the child care environment cannot be entirely eliminated, but it can be significantly reduced.

Let’s get the lead out—by finding and eliminating the sources of exposure!

<table>
<thead>
<tr>
<th>For More Information</th>
<th>See the “What the CCHC Should Know” section of NTI’s <em>Environmental Health in Child Care: Lead Module.</em></th>
</tr>
</thead>
</table>

**Notes**
Activity: Case Scenario

<table>
<thead>
<tr>
<th>Time</th>
<th>15 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Small group activity, large group review</td>
</tr>
</tbody>
</table>
| Supplies            | • One Case Scenario handout for each participant  
                     • One Fact Sheet handout for each participant  
                     • One “Is Lead Lurking?” handout for each participant |
| Instructions        | • Show slide 49.  
                     • Ask participants to find the Case Scenario handout in the Participant’s Packet.  
                     • Divide the larger group into smaller groups (preferably 5 groups—one for each of the five specific CCHC roles—consultation, resource and referral, policy development, advocacy, and health education/training).  
                     • Ask one participant to read the case scenario.  
                     • Explain that there are questions following the case scenario and they focus on the five specific CCHC roles. Explain that each small group is to answer the case scenario questions.  
                     • Ask each group to select a group leader and a recorder.  
                     • Refer participants to the two handouts as resources: Fact Sheet and "Is Lead Lurking?"  
                     • After 10 minutes, bring the small groups together. Ask one group to give its answer to the 1st question, the second group to answer the 2nd question, etc. until the five questions are addressed. |
| Talking Points      | • Now we’re going to do a case scenario activity. Please find the Case Scenario handout in your Participant’s Packet. We’re going to divide into 5 groups, one for each of the roles of the CCHC. We’ll have groups focus on consultation, resource and referral, policy development, advocacy, and health education/training. Each group will answer the questions as they relate to the role their group was assigned.  
                     • I’d like each group to select a group leader, to help guide each group’s discussion, and a recorder, to write down each group’s ideas.  
                     • You might want to use the Lead in the Child Care Environment Fact Sheet and the "Is Lead Lurking?" worksheet to guide your answers.  
                     • Take 10 minutes to work with your group, then we will come back together to share ideas. |
Closing: “Get the Lead Out” Action Plans

<table>
<thead>
<tr>
<th>Time</th>
<th>10 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Individual and large group</td>
</tr>
<tr>
<td>Supplies</td>
<td>- One copy of the “Get the Lead Out Action Plan” for each participant</td>
</tr>
</tbody>
</table>
| Instructions | - Show slide 50.  
  - Refer participants to the worksheet “Get the Lead Out Action Plan” in the Participant’s Packet.  
  - Ask participants to take 5 minutes and write down a response to the first question: “What actions will you take in the next 3 months to prevent and/or manage lead exposure in the child care environment?” This should be done individually at first.  
  - After everyone has written down his/her response, ask participants to take another 5 minutes and circulate throughout the room to share action plans with others. Ask participants to add to their list any new ideas that may be useful to them.  
  - If time allows, discuss ideas in the large group. |
| Talking Points | - Please find the “Get the Lead Out” Action Plan worksheet in your Participant’s Packet.  
  - Take 5 minutes and write down a response to the first question: “What actions will you take in the next 3 months to prevent and/or manage lead exposure in the child care environment?” This can be done individually at first.  
  - Please stand and circulate throughout the room to share your action plans with others. If you find someone else with a good idea that might be helpful to you, add it to your list. |

For More Information

Notes
Learning Assessment

<table>
<thead>
<tr>
<th>Time</th>
<th>5 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Large group activity and discussion</td>
</tr>
<tr>
<td>Technique</td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>One copy of the Assessment for each participant</td>
</tr>
<tr>
<td>Instructions</td>
<td></td>
</tr>
<tr>
<td>• Show slide 51.</td>
<td></td>
</tr>
<tr>
<td>• Refer participants to the Learning Assessment in the Participant’s Packet.</td>
<td></td>
</tr>
<tr>
<td>• Explain that the Learning Assessment it is the same set of questions you asked the group at the beginning of the session.</td>
<td></td>
</tr>
<tr>
<td>• Allow participants 5 minutes to take the Learning Assessment.</td>
<td></td>
</tr>
<tr>
<td>• Review answers to the Learning Assessment. (Answers are highlighted in the Notes of the PowerPoint slide presentation and are in the “Materials for Participant’s Packet section of this document.)</td>
<td></td>
</tr>
</tbody>
</table>

Talking Points

• Please find the Learning Assessment worksheet in your Participant’s Packet.
• You’ll notice that these are the same questions I asked the group at the beginning of this session. Take 5 minutes to answer the questions on the learning assessment on your own. After 5 minutes, we’ll come back together to review the answers.

For More Information

Notes
## Evaluation

<table>
<thead>
<tr>
<th>Time</th>
<th>5 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Technique</td>
<td>Individual</td>
</tr>
<tr>
<td>Supplies</td>
<td>One copy of the “Evaluation of Trainer Form” for each participant</td>
</tr>
</tbody>
</table>

### Instructions
- Show slide 52. (Placeholder slide not printed here.)
- Ask participants to complete the “Evaluation of Trainer Form” at this time.
- Inform participants that the evaluations are anonymous.
- Explain that the evaluation results provide you with information about the effectiveness of the training and that information collected from the evaluation will be used to improve the training.
- Allow participants 5 minutes to complete the evaluation.
- Collect forms.

### Talking Points
Please take 5 minutes to complete the evaluation.

### For More Information

### Notes
MATERIALS FOR PARTICIPANT’S PACKET

Activities

The documents needed for the activities included in this presentation are on the following pages. This includes:

- Glossary Search Worksheet
- Fact Sheet: Lead in Child Care
- Assessment of Potential Lead Problems Handout
- Notice of Potential Lead Contamination: Temporary Measures You Can Take Handout
- Recommended Actions for Prevention/Management of Lead Exposure Handout
- Case Scenario
- Get the Lead Out! Action Plan
- Learning Assessment
- Training Evaluation Form

Any of these materials may be printed and included in a participant’s packet or as handouts to be distributed to the group. You may wish to white out the existing page numbers and write in your own, or you may print each activity on different colors of paper for easy reference by your participants.

Evaluation of Trainer

The “Evaluation of Trainer Form” at the end of this material should be printed and distributed to each participant for feedback on various aspects of your training.

Cover Page

The cover page may be printed and used as a cover page for the activities, slide handout, evaluation form and any additional materials you wish to provide as part of a participant’s packet. If your participant’s packet contains several activities and handouts, you may want to create a table of contents to guide participants through the materials.
ACTIVITY: GLOSSARY SEARCH

Instructions: Draw connecting lines between the glossary terms and the definitions. You can work individually or with others.

Abatement

Environmental Hazards

Lead

Lead dust

Lead evaluation

Lead hazard control service

Paint inspection

Poisoning

Qualified lead professional (QLP)

Abatement: An exposure to a toxic substance that may kill, injure or impair a person.

Environmental Hazards: This is a person who has been certified to test for and repair lead hazards. He/she can perform a paint inspection, a lead evaluation, and/or a lead hazard control service. There are federal and states standards in place for certifying these professionals to ensure the work is done safely and the proper equipment is used to clean up (U.S. EPA, 2004).

Lead: This service provides information about the lead content of every different type of painted surface in the building.

Lead dust: Very fine particles containing lead that are usually caused by the deterioration of lead paint.

Lead evaluation: Situations or conditions in which something in the environment, such as radiation, a chemical, or other pollutant, can cause human illness or injury.

Lead hazard control service: This is completed by a qualified lead professional to assess a facility for lead risk.

Paint inspection: A heavy metal that is hazardous to health if breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations.

Poisoning: This is performed by a qualified lead professional to repair a facility that has a documented lead risk.
Fact Sheet: Lead in Child Care

Introduction
Lead is one of the most significant health hazards for children. Children exposed to high levels of lead have reduced intelligence and stature, language difficulties, impaired hearing, attention problems, and behavior disorders (National Academy of Sciences, 1993). The majority of children exposed to lead are exposed through lead-based paint used in homes and buildings built before 1978. According to the Centers for Disease Control and Prevention (CDC), approximately half a million US children between the ages of 1 and 5 have elevated blood lead levels (CDC, 2003).

The Role of the CCHC
The CCHC can provide:
- **Consultation:** Conduct an assessment of potential lead problems in the child care setting and work with qualified lead professionals when testing buildings and grounds for lead contamination.
- **Resource and Referral:** Contact local and state health departments to find a qualified lead professional and locations for blood testing in the child care center’s area.
- **Policy Development:** Ensure that the child care setting has a lead abatement policy in place. If it does not, assist the child care staff in writing and implementing one.
- **Advocacy:** Inform and work with local community groups to address exposure to and treatment of lead in local child care settings.
- **Health Education:** Stay attuned to current trends and issues in the environmental health field via contact with an environmental health specialist. Train caregivers/teachers to identify potential lead hazards in the child care center’s environment. Provide information for caregivers and families on recognizing and responding to signs of lead poisoning.

CFOC Standards Associated with Lead in the Child Care Environment (3rd ed., 2011)

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2.5.1</td>
<td>Inspection of Indoor and Outdoor Play Areas and Equipment</td>
</tr>
<tr>
<td>4.5.0.2</td>
<td>Tableware and Feeding Utensils</td>
</tr>
<tr>
<td>5.1.1.5</td>
<td>Environmental Audit of Site Location</td>
</tr>
<tr>
<td>5.2.6.3</td>
<td>Testing for Lead and Copper Levels in Drinking Water</td>
</tr>
<tr>
<td>5.3.1.1</td>
<td>Safety of Equipment, Materials and Furnishings</td>
</tr>
<tr>
<td>5.2.9.13</td>
<td>Testing for Lead</td>
</tr>
<tr>
<td>5.2.9.15</td>
<td>Construction and Remodeling During Hours of Operation</td>
</tr>
<tr>
<td>9.4.1.13</td>
<td>Maintenance and Display of Inspection Reports</td>
</tr>
</tbody>
</table>

What the CCHC Should Know
Lead is a highly toxic metal found in common items such as paint and soil. It persists in the environment because it does not break down over time.

Buildings constructed before 1978 are the most likely sources of lead in a child’s environment. Qualified lead professionals should inspect these buildings for lead contamination.

Despite a ban on lead in paint, lead paint is still the primary lead hazard for children (AAP, 1999). The most common cause of lead poisoning in children is through hand-to-mouth ingestion of lead paint chips or dust. Lead can also be ingested through swallowing contaminated soil or breathing lead-contaminated air. Other sources of lead include keys, jewelry, vinyl mini-blinds, glazed pottery, drinking water pipes, and painted toys and play equipment.

Lead poisoning is very serious. It can affect a child’s nervous system, kidneys and mental functions, as well as cause comas and even death. Damage from lead is permanent and will continue to affect a child’s health throughout life.
Children with lead poisoning generally have no symptoms and must have their blood tested to confirm exposure. Children who should be tested for lead poisoning include:
- Young children living in poverty
- Children living in homes built before 1978 (especially if they have been recently renovated)
- Children receiving Medicaid
- Children with developmental delays

(Centers for Medicare and Medicaid Services, 2005)

Methods to reduce lead exposure include:
- Removing lead-based paint (to be done by a qualified lead professional only)
- Encapsulating the lead-based paint with other special paints
- Enclosing the painted surface with a nonleaded surface such as vinyl siding
- Using High-Efficiency Particulate Air (HEPA) filters when cleaning
- Encouraging hand washing and the washing of toys

References


MMWR [serial online] 2003 Sept 12 [cited 2005 Feb 24];52(SS10);[21 screens]. Available from:

URL:
http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5210a1.htm

https://www.cms.gov/MedicaidEarlyPeriodicScrn/02_Benefits.asp#TopOfPage


Where to Find More Information
Alliance for Healthy Homes
http://www.afhh.org/
202-543-1147

CCHC Contact:

Keys
Many keys for the home, office, or car contain lead to make them stronger. A child who plays with lead-based keys may transfer harmful lead particles to her or his hands and mouth. It is difficult to tell which keys contain lead, thus it is best to never allow children to play with keys.
(Calif. Child Care Health Program, 2002)
ASSESSMENT OF POTENTIAL LEAD PROBLEMS:
QUESTIONS TO ASK THE CHILD CARE STAFF

Instructions: A child care health consultant can use this form to assess potential lead problems in a child care facility. Answers from the child care staff may indicate the need to contact a qualified lead professional.

Facility: ____________________ Person Interviewed: ________________________________
Date of Interview: ____________________ Initials of Interviewer: ____________________

<table>
<thead>
<tr>
<th>Age of Building</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>When was the facility built?</td>
<td></td>
</tr>
<tr>
<td>Has the facility been tested for lead?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
<tr>
<td>If yes, when and by whom?</td>
<td>Date:</td>
</tr>
<tr>
<td>What were the results?</td>
<td>Name:</td>
</tr>
<tr>
<td>If lead was found, what is being done?</td>
<td></td>
</tr>
<tr>
<td>If no, and the facility was built before 1978, when is a test scheduled?</td>
<td>Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location of Child Care</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there anything nearby that would cause the possibility of lead emissions (i.e., industrial site, large roadway, etc.)?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Furnishings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Are vinyl mini-blinds used in the facility?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
<tr>
<td>If yes, have they been tested for lead?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facility Cleanliness</th>
<th>Daily_____ ?  Weekly_____ ?  Other_____</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often is the facility cleaned with a damp mop/rags and all-purpose cleaner?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
<tr>
<td>Is a HEPA (high efficiency particulate air) filter used in the vacuum?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Hygiene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your handwashing policy?</td>
<td></td>
</tr>
<tr>
<td>How are handwashing procedures monitored?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Children’s Diet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have a weekly/monthly menu documenting specific menu items, and does your program follow the CACFP guidelines?</td>
<td>YES_____ ?  NO_____ ?</td>
</tr>
<tr>
<td>If yes, which iron-rich products do you serve</td>
<td></td>
</tr>
</tbody>
</table>
(i.e., eggs, dried fruit, tofu, tuna, etc.)?

Which calcium-rich products do you serve (i.e. milk, cheese, yogurt, collard greens, cottage cheese, cooked broccoli, etc.)?

<table>
<thead>
<tr>
<th><strong>Food Storage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>How are food and liquids stored in the facility?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Art Materials</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Have all art and crafts materials and toys been checked for lead content?</td>
</tr>
<tr>
<td>If yes, when and by whom?</td>
</tr>
<tr>
<td>What were the results?</td>
</tr>
<tr>
<td>If lead was found, what is being done?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Toys/Play Equipment and Play Areas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Are toys and play equipment checked at least monthly for safety, including checking that all painted items are lead-free?</td>
</tr>
<tr>
<td>Has soil around the center ever been tested for lead?</td>
</tr>
<tr>
<td>If yes, when and by whom?</td>
</tr>
<tr>
<td>What were the results?</td>
</tr>
<tr>
<td>If lead was found, what is being done?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Future Actions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a lead control or removal program in place?</td>
</tr>
<tr>
<td>If yes, who will carry it out and when will it begin?</td>
</tr>
<tr>
<td>If no, has such a program been recommended?</td>
</tr>
<tr>
<td>Will any future repair or renovation work involve surfaces that have lead-based paint on them?</td>
</tr>
<tr>
<td>If yes, what protective actions are being planned?</td>
</tr>
</tbody>
</table>

| **Notes:** |

Recommended Next Steps:
Notice of Potential Lead Contamination:
Temporary Measures You Can Take

Date of Child Care Health Consultant’s visit: __________

Location of potential hazards:

Temporary measures you can take before a qualified lead professional arrives:

1. Identify and block access to all potential lead areas.
2. Clean the child care center thoroughly. Use damp mops/dust rags and a general all-purpose cleaner instead of dry dusting or sweeping as this may further disperse lead dust particles.
3. Vacuum with a HEPA (High Efficiency Particulate Air) filter.
4. Wash children’s bottles, pacifiers, and toys frequently.
5. Encourage frequent handwashing by all staff, volunteers, and children.
6. Talk with your Child Care Health Consultant if you have questions or aren’t sure what to do.

Important! What you should NOT do:
Do not scrape or sand an area with lead-based paint without the approval of a qualified lead professional.
### Table 1

<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Recommended Actions</th>
<th>By Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Building</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-1978</td>
<td>Test the facility and surrounding soil for lead. Information on state specific regulations for lead testing can be found at state and local health departments.</td>
<td>Qualified Lead Professional (QLP)</td>
</tr>
<tr>
<td></td>
<td>Test the children for elevated blood levels. (Please refer to the “Health Effects of Lead Exposure in Young Children” section of the module for more information on specific children at risk for lead exposure.)</td>
<td>Parents/Guardians</td>
</tr>
<tr>
<td>If paint contains lead</td>
<td>Investigate which abatement option is best for the facility. Investigate which interim controls can be implemented in the meantime. (Please refer to Appendix B: Abatement and Interim Controls for a detailed description of abatement options and examples of interim controls.)</td>
<td>QLP</td>
</tr>
<tr>
<td>If pipes contain lead</td>
<td>Check the safety level of lead in the water.</td>
<td>QLP</td>
</tr>
<tr>
<td></td>
<td>Run the tap water for two minutes at the start of each day to flush out accumulated lead before using for cooking or drinking (AAP, 1999). Use only cold water for drinking and cooking (U.S. EPA, 2004).</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Location of Child Care (i.e. near industrial site, large roadway, etc.)</strong></td>
<td>Check with local health authorities about the possibility of emissions containing lead. Contact the CCHC to help facilitate the involvement of a qualified lead professional.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Furnishings</strong></td>
<td>Replace any old vinyl mini blinds that may contain lead with new ones that do not</td>
<td>Caregiver/Teacher</td>
</tr>
</tbody>
</table>

---

4 CFOC (3rd ed., 2011) Standard 9.4.1.13 states that the child care setting should “maintain and display, in one central area within the facility, current copies of inspection reports required by the state licensing office” (p. 384). This includes results of any lead tests (i.e. water, paint, etc.).
<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Recommended Actions</th>
<th>By Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facility Cleanliness</strong></td>
<td>Keep the child care facility clean. Install a good doormat and keep it clean. Use damp mops/dust rags and a general all-purpose cleaner instead of dry dusting or sweeping as this may further disperse lead dust particles throughout the environment. Use a HEPA (high efficiency particulate air) filter when vacuuming, as recommended by the EPA (1997a) for lead cleaning.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Personal Hygiene</strong></td>
<td>Encourage the frequent handwashing of all staff, volunteers, and children.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Children’s Diet</strong></td>
<td>Provide children with a diet rich in iron and calcium, such as spinach and dairy products. These foods reduce the amount of lead absorbed from the GI tract.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Food Storage</strong></td>
<td>Store food or liquid in containers made of glass, plastic, or stainless steel. Crystal glassware and imported or old pottery are likely to contain lead.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Art Materials</strong></td>
<td>Check all arts and crafts materials and toys for lead content. Only art materials that clearly have the “Conforms to ASTM D-4236” label should be used, as recommended by the U.S. Consumer Product Safety Commission (U.S. CPSC, 1996). (Additional information on the risk of art materials can be found in NTI’s Injury Prevention in Child Care, Part B training module.)</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Toys/Play Equipment</strong></td>
<td>The safety of play equipment should be checked at least monthly, including whether painted toys are lead-free.</td>
<td>Caregiver/Teacher</td>
</tr>
<tr>
<td><strong>Play Areas</strong></td>
<td>Contact the CCHC to help facilitate the involvement of a qualified lead professional to determine whether the soil should be tested for lead.</td>
<td>Caregiver/Teacher</td>
</tr>
</tbody>
</table>
ACTIVITY: CASE SCENARIO

Instructions: Select one person as group leader and one as reporter. As a small group, read the scenario and answer the questions. The questions focus on the following specific CCHC roles (consultation, resource and referral, policy development, advocacy, and health education) and how these roles are carried out in relation to a specific environmental health concern—lead exposure.

Case Scenario:
Mr. Jorge Cardenas is a caregiver at Ms. Hill’s family child care home, which was built in 1955. Mr. Cardenas observed one of the 2-year old toddlers, Ruthie, eating paint chips from a windowsill. Mr. Cardenas is very concerned and believes all of the windowsills should immediately be scraped and repainted. He has talked with several of the parents, and they are worried about their children's safety. They have volunteered to do this work over the weekend. Mr. Cardenas tells Ms. Hill about Ruthie eating the paint chips and the parents’ willingness to scrape and repaint the windowsills. He asks Ms. Hill what he should tell the parents. In turn, Ms. Hill calls you, her CCHC.

What are the main issues in this situation?

How would you respond to Ms. Hill in terms of:

Consultation?

Resource and Referral?

Policy development?

Advocacy?

Health Education/Training?
ACTIVITY: GET THE LEAD OUT!
ACTION PLANS

Instructions: Working individually, answer the first question below. After everyone has written his/her responses, circulate throughout the room to share your action plans with others and to hear theirs. Add to your list any new ideas that may be useful to you.

What actions will you take in the next 3 months to prevent and/or manage lead exposure in the child care environment?

1.

2.

What action plans do others have that you might want to add to your list?

3.

4.

5.

6.

7.

8.
LEARNING ASSESSMENT

Name ___________________________ Date ________________

Instructions: Read each question below and circle the one best answer.

1. Which of the following is the primary source of lead in the child care environment?
   a. Lead in water
   b. Lead in soil
   c. Lead in paint
   d. Lead in food

2. What is the primary route of lead exposure for young children?
   a. Putting hands or other objects covered with lead dust into mouths
   b. Playing in dirt that contains lead
   c. Drinking water that contains lead
   d. Eating foods that contain lead

3. In what year was lead-based paint banned in the U.S.?
   a. 1958
   b. 1968
   c. 1978
   d. 1988

4. Which of the following are possible secondary sources of lead for children?
   a. Old toys
   b. Old mini blinds
   c. Keys
   d. All of the above

5. All of the following are health effects of low levels of lead exposure EXCEPT:
   a. Lower IQ scores
   b. Learning disabilities
   c. Behavioral problems
   d. Cavities

6. All of the following are health effects of high levels of lead exposure EXCEPT:
   a. Kidney damage
   b. Glaucoma
   c. Convulsions
   d. Death
7. Children are most vulnerable to lead poisoning because:
   a. They ingest more lead due to hand-to-mouth activity.
   b. Their gastrointestinal tracts absorb more lead.
   c. Their brains and nervous systems are still forming.
   d. All of the above

8. Which of the following groups of children are at risk for lead poisoning?
   a. Children in the first and second year of life who live or are cared for in housing built prior to 1950
   b. Children whose parents/guardians are remodeling a house that was built before 1978
   c. Children whose parents/guardians are construction workers or are regularly exposed to lead
   d. Children who are victims of abuse and neglect
   e. All of the above

9. List three actions to prevent children’s exposure to lead in the child care environment.

10. List two nutrients that can be included in a child’s diet that may help reduce the risk of lead poisoning.

11. Except at extreme levels, lead poisoning usually shows no obvious symptoms.
    a. True
    b. False

12. A blood test is the only way to know for sure if a child has lead poisoning.
    a. True
    b. False

13. Damage from elevated lead levels is permanent and continues to affect a child’s functioning throughout life.
    a. True
    b. False

14. Childhood lead poisoning is preventable.
    a. True
    b. False
ANSWER KEY TO ASSESSMENT

1. c
2. a
3. c
4. d
5. d
6. b
7. d
8. e
9. Ensuring frequent handwashing of staff, children, and volunteers; washing toys; providing children with a diet high in iron and calcium; wet mopping floors and window sills; using a HEPA vacuum filter; etc.
10. Iron and calcium
11. True
12. True
13. True
14. True
Using the rating scale below, please evaluate the Trainer’s presentation skills.
1= unsatisfactory  2= below average  3=average  4=above average  5=outstanding
NA=non-applicable

<table>
<thead>
<tr>
<th>Training Content</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and opening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy of information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usefulness of information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear presentation of training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulfillment of training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization of training content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training Techniques: Methods, Media, &amp; Materials</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flip chart</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead transparencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PowerPoint slides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training Techniques: Activities</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear instructions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usefulness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for interaction among participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Delivery of Content</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity and professionalism of voice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pace of presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Facilitation Skills

Please rate the Trainer on the following skills:

<table>
<thead>
<tr>
<th>Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manner of answering questions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manner of handling difficult behaviors of participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to engage all participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please take a moment to answer the following questions:

What did you like most about this training?

What can the Trainer do to improve this training?

Was this the most effective way to present this material? Please explain.

Do you have any suggestions for other methods to present the material?

Thank you.
Environmental Health in Child Care: Lead

Participant’s Packet