MIHP COMMUNITY OF PRACTICE

MCIR and Elevated Lead Levels

Thank you for joining us!

We will start momentarily.

MCIR and Elevated Lead Levels

August 24, 2022

Presenters

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- Reminder: Please check that your microphone is muted.
- This presentation will be posted on the MIHP <u>Provider</u> <u>Training</u> website.

Session 3 of 3: MCIR-Related Content

Community of Practice Sessions:

1. Hearing

• Wednesday, June 8th 1:00pm - 2:30pm



2. Immunizations

• Wednesday July 13th 9:00am − 10:30am ✓



3. Lead

- Wednesday August 24th 9:00am − 10:30am ✓
- Support new Cycle 9 requirements
- Each session incorporates a parent story

Overview of Topics

Maternal Infant Health Program

- MIHP Cycle 9 Updates
- Reviewing MCIR
- New MIHP MCIR Guidance Document

Childhood Lead Poisoning Prevention Program

- Prevention strategies
- Populations at increased risk
- Blood lead testing recommendations
- Resources for MIHP families

MIHP Cycle 9 Updates: Lead

Lead: Discussions and MCIR

- Enrollment
 - Discuss lead exposure prevention
 - Provide Lead Fact Sheet
- Infant visit between 10-12 months of age
 - Discuss need for lead screening at 12 months of age
- Infant visit beyond 12 months of age (if services are continued)
 - Access MCIR and review results with caregiver
- Document results and follow-up: PVPN "other visit information"

MIHP MCIR Assessments: Summary

Visits Requiring MCIR Assessment	Maternal MCIR Assessment	Infant MCIR Assessment	Documentation	
First visit following enrollment	Immunizations	Immunizations and Hearing, if available in MCIR (if not, see next row)	Imms: Include MCIR in Chart Hearing: PVPN "other visit information" section	
As soon as possible following enrollment but no later than the 3 rd visit	n/a	Immunizations and Hearing	Imms: Include MCIR in Chart Hearing: PVPN "other visit information" section	
First visit following infant turning 5 months*	n/a	Immunizations	Include MCIR in Chart	
Visit after infant turns 12 months	n/a	Lead	PVPN "other visit information" section	
Visit after infant turns 16 months	n/a	Immunizations Include MCIR in 0		

^{*}If the infant is older than 5 months at enrollment, at least 2 separate immunization MCIR reviews are still required

- at the first professional visit following enrollment and at least one other professional visit prior to discharge.

Protocol

 Protocol 5.4: Immunization, Lead Screening, Hearing Screening, and accessing Michigan Care Improvement Registry (MCIR)

Lead

- When prevention and screening discussion occurs
- Timeline for discussion for lead screening
- If infant continues to receive services beyond 12 months of age, access MCIR and assess lead screening and results
- Review results with caregiver and follow up when needed

Reviewing MCIR: Lead Levels

MIHP MCIR Support

- Available on our Policy & Operations Page
- Instructions for MIHP Users to Access MCIR

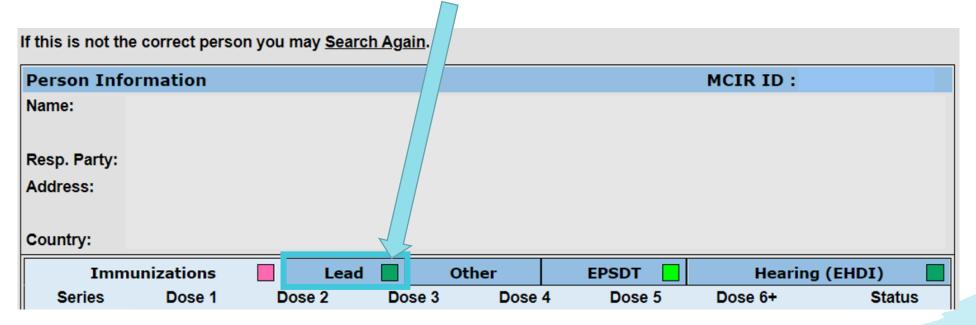
• Companion Guide: Utilization of MCIR in MIHP



Utilization of Michigan Care Improvement Registry (MCIR) in the Maternal Infant Health Program (MIHP) Companion Guide

Where are Lead Levels Located?

- Upon locating an infant's MCIR record, the Immunizations section will be the default display.
 - To review hearing results, select the **Lead** tab.



View Results

Immuni	zations	Newborn S	creening	Lead	Other	EPSD1	Hearing ((EHDI)
Spec. Date	Spec.	ld	Report	ed	Sample Type	Resi	ult (µg/dL)	
			09/11/2	021	Venous	4.0	1	?
	_		03/12/2	021	Venous	5.0		
	_		01/22/2	021	Venous	4.0	100	
	_		10/15/2	020	Venous	5.0		
	_		06/23/2	020	Venous	5.0		
	-		03/23/2	020	Venous	6.0		
			12/06/2	019	Venous	8.0		

• Document results and follow up in PVPN "Other Visit Information"



NEW MIHP Guidance Document

MIHP MCIR GUIDANCE AND SUPPORT: LEAD

Maternal Infant Health Program (MIHP) Home Visitors must discuss lead screening, access results in the Michigan Care Improvement Registry (MCIR) and follow up as appropriate. This document provides guidance for viewing data in MCIR and supporting families with appropriate resources. Please note that this document is MCIR-specific and is therefore not all-encompassing for other aspects related to lead screening. For example, this document reviews the timeframes to review lead results in MCIR, yet discussion regarding lead occurs at additional timeframes such as enrollment and 10-12 months.

Reminder: Please ensure that appropriate staff have been provided MILogin and MCIR access. The MIHP website has instructions for MIHP how to gain access to MCIR.

WHEN IS MCIR LEAD ASSESSMENT EXPECTED PER MIHP GUIDELINES?

If an infant receives MIHP services beyond 12 months, check lead results in MCIR and discuss with family. Below is an overview of this process:



WHERE ARE THESE RESULTS LOCATED IN MCIR?

Upon locating the child's MCIR record, the **Immunizations** section will be the default display. To review lead results, select the **Lead** tab:

Immunizat	tions	Newborn	Screening	ead Other	EPS	D1	Hearing	(EHDI)
Spec. Date	Spec. Id		Reported	Sample 1	ype	Result	(µg/dL)	
			09/11/2021	Venous		4.0	1	?
			03/12/2021	Venous		5.0	1	
			01/22/2021	Venous		4.0	1	
			10/15/2020	Venous		5.0		
	-		06/23/2020	Venous		5.0	1	
			03/23/2020	Venous		6.0		
_			12/06/2019	Venous		8.0		

HOW CAN I SUPPORT FAMILIES BASED ON THE RESULTS?

Use the guidance below to discuss results in MCIR and provide support based on blood lead levels.

RESULTS	GUIDANCE BASED ON LEAD LEVEL
No results	 Encourage follow-up with healthcare provider, as Medicaid requires testing at 12 and 24 months. Blood lead testing may also be available through the <u>local health department</u>. If family reports testing, results may not yet be in MCIR. Inform the family of potential follow-up if results indicate elevated lead levels. Provide resource(s) from "Education for All Lead Levels".
Less than 3.5 μg/dL	 Lead levels are not at a level requiring intervention for reduction but keep in mind there is no safe level of lead in the blood. Advise that the family can expect another test at 24 months. Exceptions: If tested prior to 12 months, re-testing may be considered in 3-6 months, since lead exposure may increase as mobility increases. Re-testing is advised in 6-12 months if high-risk or if environmental risk changes during the timeframe (see "Lead Risk Assessment" in education resources below). Provide resource(s) from "Education for All Lead Levels".
3.5 µg/dL or higher	 When lead levels are elevated, families are contacted by the local health department (LHD) for a variety of services. Ask about what services have been offered to the family and encourage response and utilization (Or prepare family for upcoming information if they have not yet been contacted). Examples of LHD services to discuss and encourage response: If the family was provided an application for the Lead Safe Home Program If the family was referred to Early On (lead level at or above 3.5 μg/dL is eligible) If the family was advised to repeat testing If the family was offered lead-specific nurse home visits If the family was advised on specific measures to reduce lead levels, exposure, etc. Questions? The local health department can support families in understanding these resources, completing the Lead Safe Home application, and more. If the family reports no communication with the LHD, recommend they contact the LHD. If at subsequent visits, they have not had communication with the LHD lead poisoning prevention team to understand services available, contact the MDHHS Childhood Lead Poisoning Prevention Program at 517-335-8885. Provide resource(s) from "Education for All Lead Levels".
45 μg/dL or higher	 Blood lead results at this level trigger rapid, thorough investigation and treatment. Follow guidance for "3.5 μg/dL or higher" and encourage prompt response to all services offered by local health department lead poisoning prevention team. If the family reports no communication from the LHD, recommend they contact the LHD. If at subsequent visits, they have not had communication with the LHD lead poisoning prevention team to understand services available, contact the MDHHS Childhood Lead Poisoning Prevention Program at 517-335-8885. If re-location is advised due to risk in primary environment, discuss alternative housing options. Additional service coordination may be indicated such as support for transportation, food assistance, etc. Provide resource(s) from "Education for All Lead Levels".

EDUCATION FOR ALL LEAD LEVELS

MDHHS Handouts and Lead Risk Assessment:

- Lead Know the Facts
 - o Spanish
- Nutrition Well Fed Means Less Lead
 - o Spanish
- Pregnancy and Breastfeeding
- Migrant-Specific Resource: Spices and Remedies from Other Countries May Contain Lead
- Lead Risk Assessment: Page 2 of the <u>Blood Lead Level Quick Reference</u>

FREE MATERIALS FOR ORDER!

Consider ordering FREE printed materials from the MDHHS Clearinghouse.

Additional Resources and Contact Information

- Learn about more resources and statewide lead programs: <u>www.Michigan.gov/MiLeadSafe</u>
- Lead Safe Home Program Central Intake Line: 517-230-4667
- Local Health Department Directory: www.Michigan.gov/LHDmap



Mission: To prevent childhood lead poisoning across the state through surveillance, outreach, and health services.

Vision: No child in Michigan suffers from lead poisoning.

Lead Poisoning Prevention and Local Resources

MIHP COMMUNITY OF PRACTICE 8.24.2022

AIMEE SURMA, KAREN LISHINSKI & JULIE FOX

CLPPP NURSE CONSULTANTS



Objectives

- •Understand the impact of COVID on lead testing
- Describe blood lead testing recommendations
- •Identify at risk populations, sources of exposure and routes of exposure
- Primary prevention strategies
- Provide lead poisoning prevention resources to families enrolled in the Maternal Infant Health Program



Childhood Blood Lead Testing: Impact of COVID-19 MICHIGAN DATA BRIEF



- · Childhood blood lead testing has decreased during the pandemic.
- Early intervention for lead exposure is essential.
- There is no safe level of lead in blood.





Monthly Number of Michigan Children <6 Tested for Blood Lead January 2017 to December 2020



In 2019, 2.7% of children tested (<6 years old) had an elevated blood lead level (EBLL ≥ 4.5 μg/dl). Go to mitracking.state.mi.us/ for your area's lead data.

- Contact your patients who are overdue for blood lead testing.
- Test for lead. Early identification of children with elevated blood lead levels allows intervention to eliminate ongoing exposure.



Scan here for MDHHS Blood Lead Testing Quick Reference for Primary Care



To learn more about lead poisoning prevention and blood lead testing, contact the Childhood Lead Poisoning Prevention Program:

517-335-8885 or Michigan.gov/lead

Updated 4/2021



Screening and Testing for Children

All Medicaid enrolled children must be tested for lead at 1 and 2 years of age or at least once between 3 and 6 years of age if not previously tested

BLOOD LEAD RISK ASSESSMENT

Medicaid Requirements: All children covered by Medicaid are considered at high risk for blood lead poisoning. Medicaid requires all children to be tested at 12 and 24 months of age. Children between 36 and 72 months, who were not previously tested, must be tested at least once.

All children under 6 years old (72 months) should be assessed for risk of lead poisoning using the following questions:

- Does the child live in or regularly visit a home built before 1978? (Note: recent or planned renovations can greatly increase risk of lead exposure in homes built before 1978)
- Does the child live in or regularly visit a home that had a water test with high lead levels?
- Does the child have a brother, sister, or friend that has an elevated blood lead level?
- Does the child come in contact with an adult whose job or hobby involves exposure to lead (e.g., smelting, indoor shooting/firing ranges, pottery, stained glass, refinishing old furniture)?
- Does the child's caregiver use home remedies that may contain lead (e.g. ba-baw-san, daw tway, greta, azarcon, balguti kesaria, ghasard)?
- Is the child in a special population group such as foreign adoptee, refugee, migrant, immigrant, or foster child?
- Does the child's caregiver have reason to believe the child is at risk for lead exposure (e.g. exhibiting pica behavior, developmental delays)?

If answered YES or DON'T KNOW to any of these questions, lead testing is recommended.

To learn more about lead poisoning prevention and blood lead testing, contact the Childhood Lead Poisoning Prevention Program:

517-335-8885 or www.michigan.gov/lead

Also see: AAP Council on Environmental Health. Prevention of Childhood Lead Toxicity. Pediatrics. 2016; 138(1):e20161493.DOI: 10.1542/peds.2016-1493

Who is at risk?

Children less than 6 years old

Children living in housing built before 1978

Pregnant Women

Refugee and Immigrant Populations Adults who use lead in their workplace or hobby

Children less than 6 years old

- Growth and Development
 - Neurological system is developing during the first 6 years of life
 - Number of synaptic connections peaks at age two when pruning begins
 - Lead, as the toxic agent, interferes with this process
- Hand mouth activity
 - Children are most often poisoned by ingestion
 - Children play on the floor and at windowsills where the dust typically settles
- Absorption
 - Children absorb up to 70% of lead ingested



Pregnant Women

- PRIMARY PREVENTION IS ESSENTIAL
- Previous exposure
 - Maternal blood lead stores may increase during lactation due to mobilization of lead from bone stores.
 - Calcium supplementation during pregnancy may minimize the release of lead from bone stores
- Crossing the placenta
 - Lead readily crosses the placenta by passive diffusion
 - Measured in the fetal brain as early as the end of the first trimester

Screening and Testing for Pregnant Women



BLOOD LEAD RISK ASSESSMENT FOR PREGNANT & BREASTFEEDING WOMEN

Routine blood lead testing of all pregnant and breastfeeding women is not recommended. However, all pregnant or breastfeeding women should be assessed for risk of lead exposure using the following questions:

- Do you live in or regularly visit a home built before 1978 that has had renovations, repair work, or remodeling in the last 12 months?
- Do you live in or regularly visit a home that had a water test with high lead levels?
- Have you recently immigrated from or recently lived in an area where environmental lead contamination is high (e.g. Bangladesh, Mexico, India)?
- Do you use imported home remedies, spices, ceramic pottery or cosmetics?
- Do you eat, chew on, or mouth nonfood items such as clay, crushed pottery, soil or paint chips?
- Do you or others in your household have a job that involves possible lead exposure? (e.g. construction, smelting, auto repair)
- Do you or others in your household have any hobbies or activities that involves possible lead exposure (e.g. working with stained glass, ceramics, jewelry making)?
- Do you have a history of lead exposure or live with someone who has an elevated blood lead level?

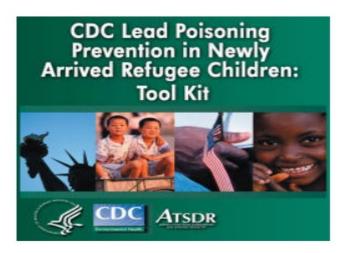
If you answered YES or DON'T KNOW to any of these questions, talk to your doctor about blood lead testing.

To learn more about lead poisoning prevention and blood lead testing, contact the Childhood Lead Poisoning Prevention Program:

517-335-8885 or Michigan.gov/Lead

Refugee and Immigrant Populations

- Newly arrived refugee children are twice as likely as U.S. children to have elevated BLLs
- Some sub-populations of refugee children are **12-14.5 times more likely** to have elevated BLLs
- Data suggest that refugee children are also at risk for elevated BLLs after resettlement in the U.S.
 - Cultural practices and traditional medicines
 - Lack of awareness of lead hazards
 - Compromised nutritional status
 - Living in older homes



CDC refugee toolkit

Screening and Testing for Refugee and Immigrant Populations

Table 1. Screening recommendations for all newly arrived refugee infants, children, adolescents, and pregnant and lactating women and girls

Recommended Screening Measures	Population
Initial lead exposure screening with blood test	 All refugee infants and children ≤ 16 years of age Refugee adolescents > 16 years of age if there is a high index of suspicion, or clinical signs/symptoms of lead exposure All pregnant and lactating women and girls*
Follow-up testing with blood test, 3-6 months after initial testing	 All refugee infants and children ≤ 6 years, regardless of initial screening result Children and adolescents 7-16 years with EBLL at initial screening Consider repeat testing in adolescents > 16 years of age with risk factors
prescribed a prenatal or calcium. Referral to a he	ant or breastfeeding women should be multivitamin with adequate iron and althcare provider with expertise in high-risk t and management may be indicated for

Elevated blood lead level (EBLL) is defined as a single blood lead test (capillary or venous) with a result of $\geq 5~\mu g/dL$. Elevated capillary screening results should be confirmed with blood drawn by venipuncture

Adults Who Use Lead in The Workplace

- Artists
- Auto repairers
- Battery manufacturers
- Bridge reconstruction workers
- Construction workers
- •Firing range instructors and gunsmiths
- Glass manufactures
- Lead miners
- Lead refiners
- Lead smelters
- Manufacturers of bullets, ceramics, and electrical components

- Painters (old paint and commercial paint may contain lead)
- Plastic manufacturers
- Plumbers and pipe fitters
- Police officers
- Radiator repairers
- Recyclers of metal, electronics, and batteries
- Rubber product manufacturers
- Shipbuilders
- Solid waste incinerator operators
- Steel welder

Sources of Exposure

- Paint
- Dust
- Drinking Water
- Soil
- Certain jobs and hobbies
- Household items & imported good



Children Living in Housing Built Before 1978

➤ Deteriorated lead-based paint

The older the home, the more likely that painted surfaces like windows, cupboards, doors and porches will contain lead paint

Chipping, peeling, cracking paint creates lead dust

70's Avocado Green*

*A sign that your home was built before 1978 and that it may contain lead paint.

Before renovating, learn how to protect your family from the dangers of lead paint.

- · Test work area for lead paint.
- Seal off the work area with plastic sheeting.
- Wet area during scraping and sanding to keep dust out of the air.
- · Do not remove paint with a torch or heat gun.
- Move your family until work is done, and the area is properly cleaned.
- · If using a contractor, ask if they are certified in Michigan.
- If renovations are already complete, test the space, and test your children for lead.

Construction Contractors
Painters | Handymen/women
Rental Property Owners
Rental Property Managers
Plumbers | Carpenters | Electricians
Homeowners | Renters
School Administrators
Child Daycare Directors

What Should You Know:

Pre-Renovation Education Rule

Built before 1978? The law applies now.

What's the size of work area that applies? At least 2 square feet of painted surface inside or 20 square feet of paint outside.

Who does what? Those doing renovations must provide a federal booklet called Renovate Right to the property owner and occupants and users of the property before work begins. Contractor keeps proof that the booklet was received.

Disclaimer: Information provided does not contain all PRE requirements. For questions about PRE contact MDHHS HHS at 517-335-9390 or visit www.michigan.gov/leadsafe.

Renovation, Repair & Painting Law

When? April 2010.

What's the size of work area that applies? At least 6 square feet of painted surface inside or 20 square feet of paint outside.

Who does what? The same as the Pre-Renovation Education Rule and the contractor needs to be licensed. Workers on the job need training to do their work using lead-safe practices. They must conduct a cleaning verification when they are done to ensure the work area is clean.

Disclaimer: Information provided does not contain all RRP requirements. For questions about RRP contact EPA at 800-424-LEAD or www.epa.gov.



Spices, Cosmetics, and Remedies that may contain lead





- Tamarind Candy
- Chile flavored candies
- Greta
- Rueda
- Kohl
- Kum Kum
- Bali Goli
- Deshi Dawa
- Pay-loo-Ah
- Henna
- Plum candy
- Cordyceps
- Jin Bu Huan



TUMERIC (India)

LOZEENA (Iraq)

BALGUTI (India)



Routes of Exposure



ngestion

- Route that most commonly lead to elevated BLLs
- Most common route of exposure to lead for children.
- Includes swallowing a foreign body containing lead (jewelry, etc)
- 20%-70% of ingested lead is absorbed into the body
- Children generally absorb a higher percentage than adults



nhalation

- Second major pathway of exposure
- Amount absorbed depends on several factors including particle size
- Almost all inhaled lead is absorbed into the body
- Inhalation from leaded gasoline additives were phased out in the early 1970s and control measures were implemented in industries to reduce air emissions
- Inhalation from the above sources is no longer the major exposure pathway to lead for the general population
- May be primary route of exposure for some workers in industries that involve lead
 - Home renovation activities
 - Hobbies involving lead glass making, stained glass making/soldering



popu • Expo work • Ma

- Not a significant pathway for general population
- Exposure to organic lead among workers
- May be absorbed directly through the skin
- Most likely among people who work with lead or materials that contain lead

Symptoms and Health Effects

- -Asymptomatic
- Symptomatic
 - Abdominal pain, constipation, tired, headache
 - Irritable, loss of appetite
 - Weakness
 - Memory loss



- Learning
- Behavior
- Speech
- Hearing
- •Growth rates
- Development of the nervous system

Call-to-Action for MIHP Home Visitors

- Check MCIR for lead testing results
- Educate parents on importance of 12 and 24 month lead testing
- Be aware of potential lead hazards in each client's environment
- •Encourage families to contact local health department for resources and case management
- Provide resources from "Education for All Lead Levels"

INTERVENTIONS

NURSE CASE MANAGEMENT

LEAD REMEDIATION

Elevated Blood Lead Nursing Case Management (EBL NCM)

Goals

- Bring Child's BLL below 3.5μg/dL
- Ensure home is free of ongoing lead hazards
- Ensure ongoing care coordination with primary care providers and Medicaid Health Plans
- CLPPP Nurse Consultant provides technical assistance to LHD nurses providing nursing case management activities

Elevated Blood Lead Nursing Case Management (EBL NCM)

- Components
 - Nursing Assessment
 - Plan of Care
 - Education
 - Referrals



State and Local Response to Child Blood Lead Test Result

*Nurse Case Management (NCM) -

- Level of effort to contact the family should include, at a minimum, at least two telephone calls and one drop-by at the last known address (preferably one in non-business hours), plus a request to the child's primary care provider and/or Medicaid Health Plan to assist in reaching the family.
- Frequency of nurse home visits based upon assessment findings, potential source of exposure and families' needs.
 - Note: Medicaid will reimburse for up to six home NCM visits for venous EBLL children enrolled in Medicaid at the time of the home visit but will reimburse for more if approved by CLPPP.
- Documentation of activities should be included in HHLPSS, including notes on every interaction with regarding the child (phone calls to parent, drive by, call with child's provider etc.) and uploaded documents: initial and follow-up home visit completed forms, the plan of care, and EI reports, if available
- Education (provided during home visit and may also be provide on phone and by mail
 - a. Interpreting child's blood lead level
 - b. Importance of retesting
 - c. Nutrition
 - d. Lead safe cleaning methods
 - e. Identification of lead hazards
- 2. Assessment during the home visit
 - a. Health and Nutritional History
 - b. Visual/physical assessment of child
 - c. Child's social history, play snd sleep habits,
 - d. Child's behaviors (PICA like behavior-eating non-food items). Include caregiver's assessment
 - e. Child's cognitive development
 - f. Child's development based on caregiver's observations and developmental screening
 - g. Referrals
 - i. WIC
 - ii. Early On (automatic eligibility for venous EBL ≥4.5μg/dL
 - iii. Remediation (LSHP/CDU)

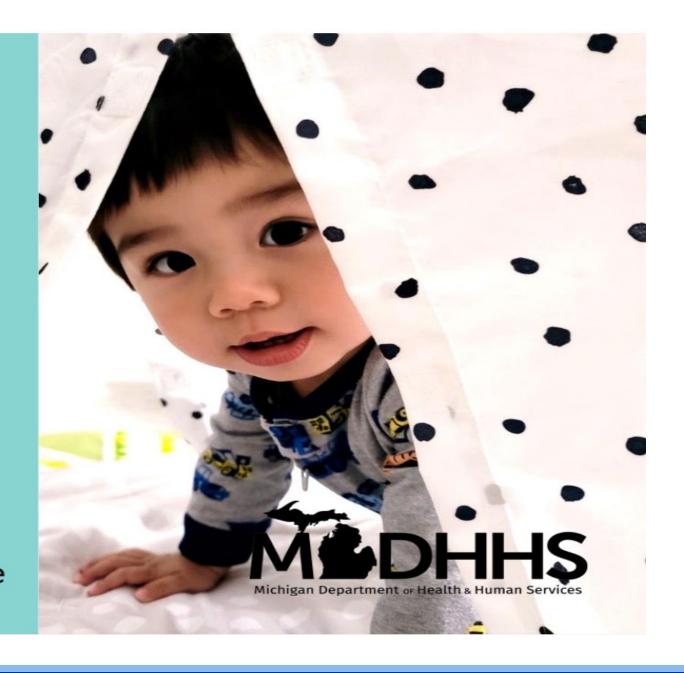
- iv. MHP
- v. Early Head Start/Head Start, Project Find
- vi. Mental Health
- vii. Other community resources based on identified needs
- h. Social determinants of health (access to health services)
- Property assessment (visual review to identify potential lead hazards, ownership information)
- 3. Written Plan of Care completed as a result of home visit
 - a. Coordination of care based on identified needs:
 - i. Lead hazard present
 - ii. Poor nutrition
 - iii. Need for medical follow-up
 - iv. Long term developmental follow-up
 - v. Potential for family lost to follow-up services
 - vi. Potential additional services

RESOURCES

Lead-based paint could be hiding in your home.

Call **1-866-691-5323** to request an application.

Visit Michigan.gov/MiLeadSafe



Lead can cause health problems, especially in children.

Lead services offered by the Michigan Department of Health and Human Services

will help protect your household from lead exposure.

You may be eligible for these free or low-cost lead services:







A home lead inspection

Testing for lead in drinking water

Fixing lead hazards

The Michigan Department of Health and Human Services will not exclude from participation in, deny benefits of, or discriminate against any individual or group because of race, sex, religion, age, national origin, color, height, weight, marital status, gender identification or expression, sexual orientation, partisan considerations, or a disability or genetic information that is unrelated to the person's eligibility.

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 517-335-9390 (TTY: 711).

ملحوظة: إذا كنت تتحدث اذكر اللغة، فإن خدمات المساعدة اللغوية تتوافر لك بالمجان. اتصل برقم 9390-335-517 (رقم هاتف الصم والبكم:-711:TTY).



Mi Lead Safe - Mi Lead Safe (michigan.gov)

Mi Lead Safe

LEARN ABOUT LEAD

LEAD SERVICES

FOR LEAD PROFESSIONALS

FOR HEALTHCARE PROVIDERS

ABOUT US

There is no safe level of lead in the blood. Learn about lead and:







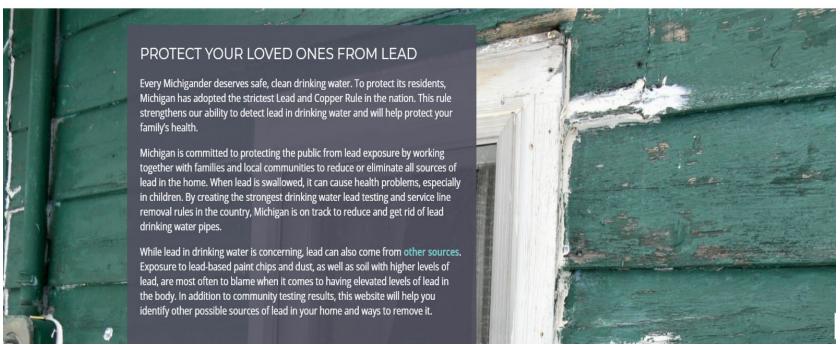
Get Certified As A Lead Professional



Get A Blood Lead Test



Lead & Your Health



Lead Education Course for Primary Care Providers







Family Stories

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