*The Intersection of Environment, Housing, and Health* Part 1: Best Practices to Prevent Lead Poisoning: What Families Need to Know

Deepa Mankikar, Public Health Project Manager Kevin Leacock, Public Health Project Coordinator

October 23, 2019



### **National Nurse-Led Care Consortium**

The National Nurse-Led Care Consortium (NNCC) is a membership organization that supports nurse-led care and nurses at the front lines of care.

NNCC provides expertise to support comprehensive, communitybased primary care.

- Policy research and advocacy
- Technical assistance and support
- Direct, nurse-led healthcare services



### Question & Answer

During the presentation, you may ask questions. Click **Q&A** and type your questions into the open field.

The Moderator will either send a typed response or answer your questions live at the end of the presentations.

## Lead-Based Paint: Best Practices to Prevent Lead Poisoning -What Families Need to Know

HUD Office of Lead Hazard Control and Healthy Homes October 23, 2019

## Today's Presenters

Bruce Haber



#### Brenda Reyes, MD MPH



#### Shannon Steinbauer, RN BSN MPH



## What to Expect

Brief history of lead
Why lead is detrimental to health
What steps can providers take to help patients?

•What resources are available?

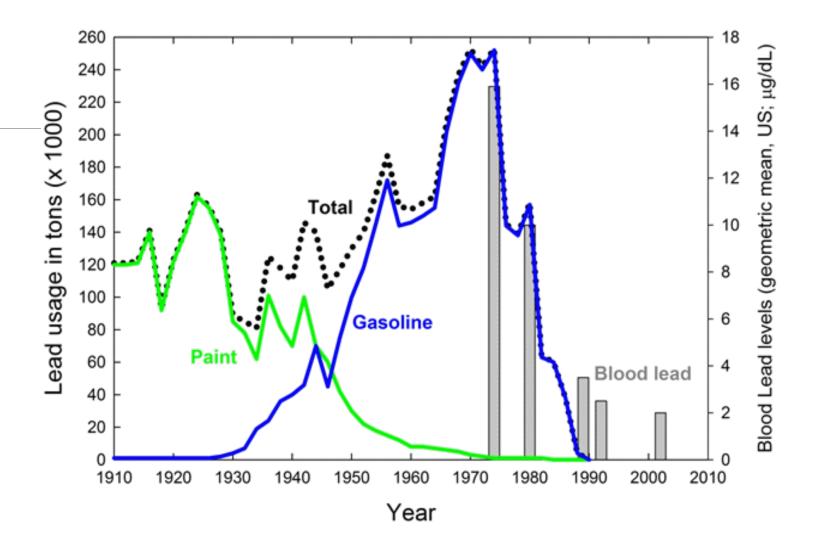
<b>6500 BC</b> Small statue found in Turkey believed to be oldest lead containing object		<b>400 AD</b> Romans use lead in <i>everything</i> – from lining baths to sweetening wine		<b>1690</b> German city of Ulm bans lead in wine after city-wide stomach cramps		<b>1914</b> Australia bans lead in house paint		<b>1978</b> Lead based paint banned for use in housing (USA)	
		ects of lead Lead is use gnized and produce th		ne first ype in the ented	first writes of e in the affecting ed painters,		ladies producing lead kers, containing Ethyl (		<b>1992</b> Congress passes the Residential Lead- Based Paint Hazard Reduction Act

## A Short History

Lead was used in both paint and gasoline

Blood lead levels have dropped with the removal of lead in gas

While more lead went into gas, the paint remains in our homes



## A Short History



Lead-based paint is a paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight.



1. I don't serve families in the zip codes that have leadbased paint hazards

True

False

What ZIP Codes?

2. Most of the families we serve are not low-income so lead is not an issue

True False

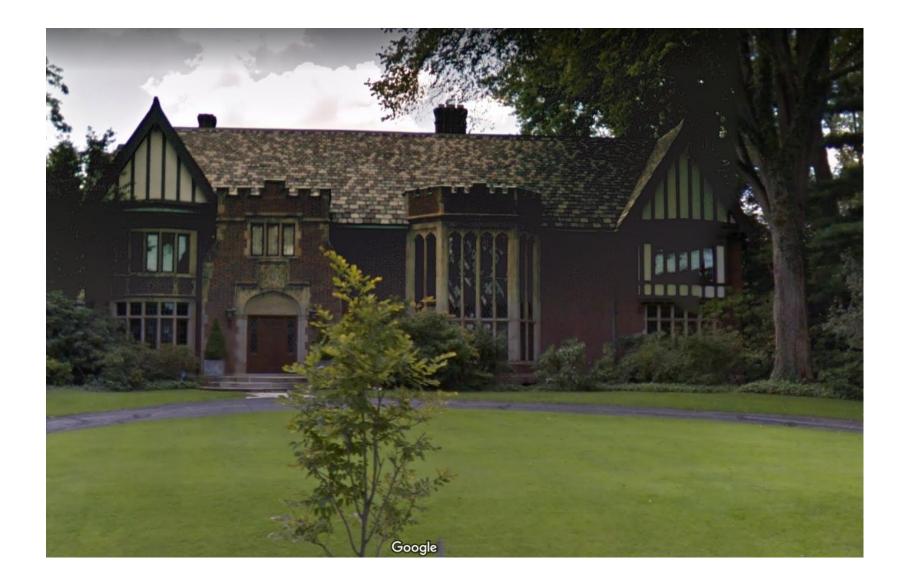
## Is my home safe?





## LBP is not always obvious







### Even the prettiest home may have LBP or LBP Hazards



# Maybe an apartment

## MYTH BUSTERS

Debunking myths about testing and referring for services:

Don't be so sure! Many families use older housing to restore and rehab. Families often don't realize the dangers they are living in during remodeling when they are doing it themselves

Families could have relatives or friends that act as their day care providers who live in older homes which pose the threat to the children you serve

Families often don't know the year their house/apt was built so that is not a good predictor of risk during an assessment.

## Lead in Dust Hazards micrograms per square foot

### **NEW EPA Standards**

10  $\mu$ g/ft<sup>2</sup> on floors and 100  $\mu$ g/ft<sup>2</sup> on interior window sills

### How much is too much







## Lead Hazards in Housing

#### Lead Hazards

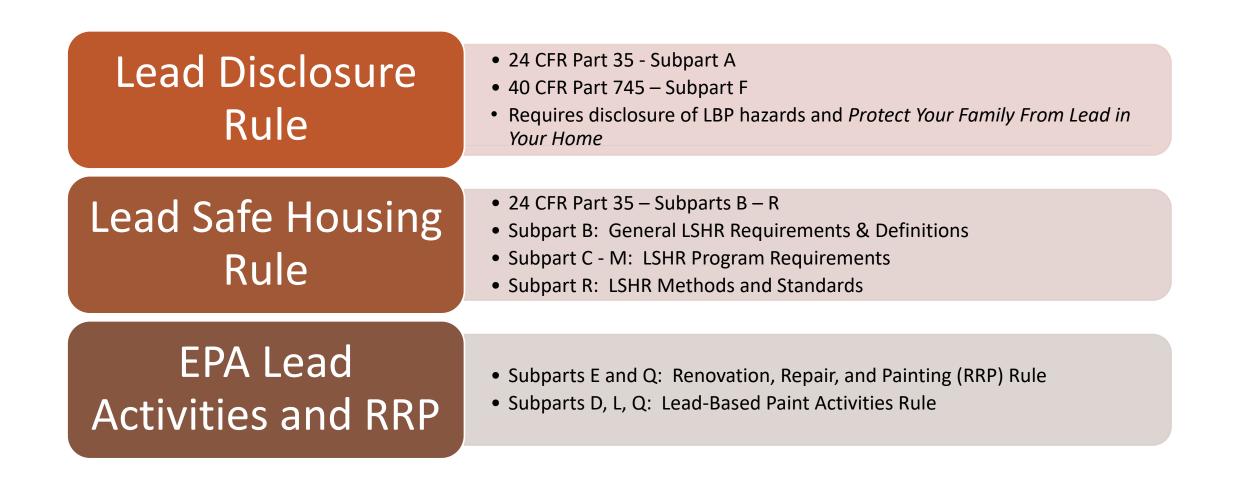
- Chipping, peeling, flaking paint (pre-'78)
- Soil contamination
- Water supply (leaching from pipes, solder, and fittings)
- Household items such as pottery, toys, cosmetics, etc.

#### Scope of Problem

- 37 million homes with LBP, 23 million with LBP hazards
- Over 500,000 children with blood lead levels above CDC's reference value
- Estimated 6,700 children with elevated blood lead levels (EBLLs) in HUDassisted housing

#### **Economic Impacts**

- \$5.9 billion in annual medical costs
- \$50.9 billion in lost productivity
- Most common in lowincome and minority communities



## Lead in Housing - Regulations



## MYTH BUSTERS

## My clients are older than six. I don't need to worry about lead exposure

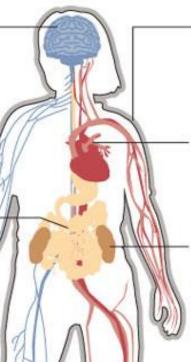


#### ADULTS



Constipation, nausea and poor appetite

Nervous system = Damage including numbness and pain in the extremities



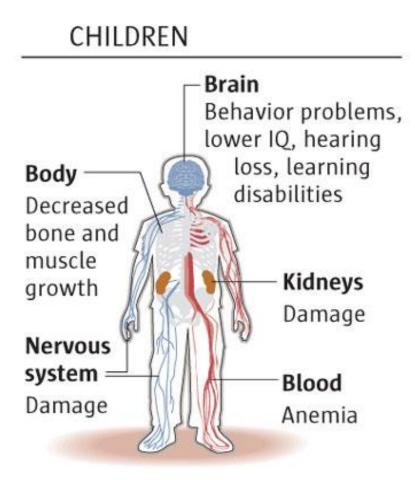
**Body** Fatigue, joint and muscle pain **Cardiovascular** High blood

Kidneys Abnormal function and damage

pressure

#### **Reproductive system**

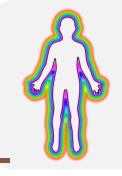
Men: Decreased sex drive and sperm count, and sperm abnormalities. Women: Spontaneous miscarriage



#### Lead Half Life



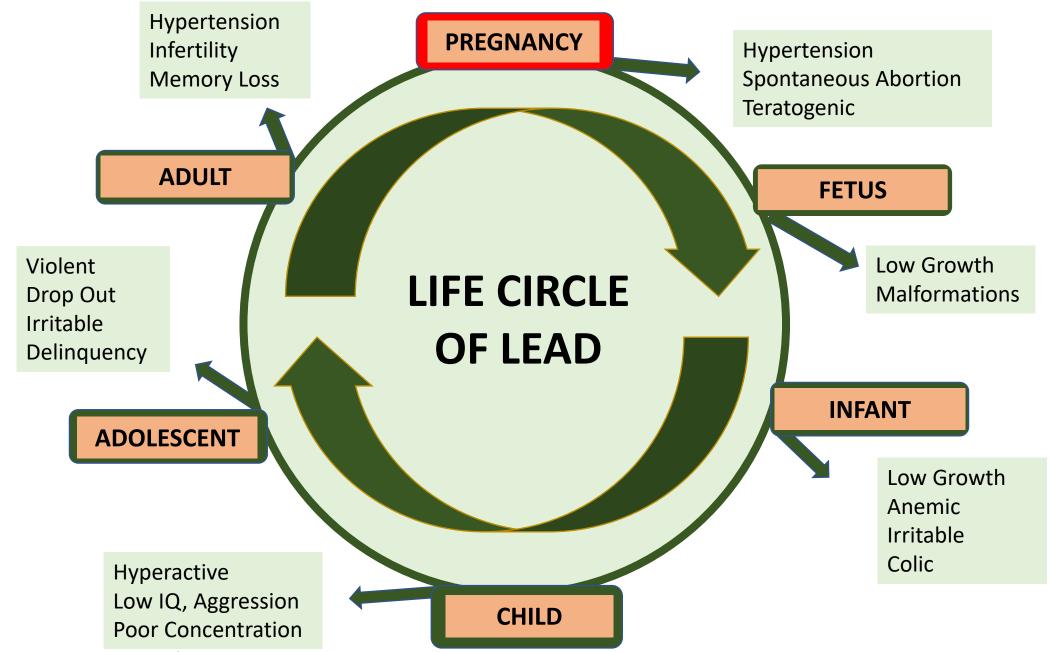
#### Blood 30-days



#### Soft Tissue 30-days







(Created for Educational Purposes only)



1. Lead Hazard Investigation is too costly and invasive to refer families to complete.



2. They don't have the resources to do anything about it so why ask them to do this?

True False

## MYTH BUSTERS

By knowing where lead hazards are, families can take steps to prevent exposure by placing barriers between the child and the sources and using wet cleaning; even without money for remediation

There may be grant programs to help cover the cost entirely including the remediation.

Common Barriers to Lead Poisoning Prevention

#### Lack of Awareness of issue

- What is the Health Impact
- How to Assess
- What are the Interventions
- Are there Community Resources

Lack of trained capacity in health professions to know and work the system to benefit clients

Health Care mostly reactionary and not primary prevention

Lack of leaders and champions in elected and appointed arena to prioritize housing safety

Poor state enforcement of lead safe rules causing exposure

Targeting Funding to address problems in high need areas

## **Role of Health-Care Provider Related to Lead**

 Prevent exposure by educating families on common environment hazards as a standard during well child checks for all children

 Provide anticipatory guidance about children with elevated blood lead levels (EBLL) and its prevention.

## **Role of Health-Care Provider Related to Lead**

- Provide screening for BLL following established screening schedules and interpret blood lead results.
- Educate parents about reducing blood lead levels and retesting schedule.

### **Role of Health-Care Provider Related to Lead**

•Coordinate with local public health officials.

•Ensure that EBLL children receive appropriate medical, environmental, and social service follow-up.



#### 1. Chelation is the best solution

True False

2. Can the family do anything to prevent exposure?

Yes No

## MYTH BUSTERS

- There may be a case where chelation is indicated immediately as the best option, but usually not a first or single option
- All chelation must be combined with home assessment and source identification

 Coordinate the environmental evaluation and remediation to identify where the lead hazards and sources are in the home/daily environment. PEHSU are a great resource locally

http://www.pehsu.net/Public\_Chelation\_Therapy.html

### Why you need to know..



Nurses run the show!

They are the first line with families in clinic community and primary care

Your own families come to you when seeking health info

Many opportunities to advocate healthy home principles

You are seen as the expert to them!

## We trust and want you on our team!

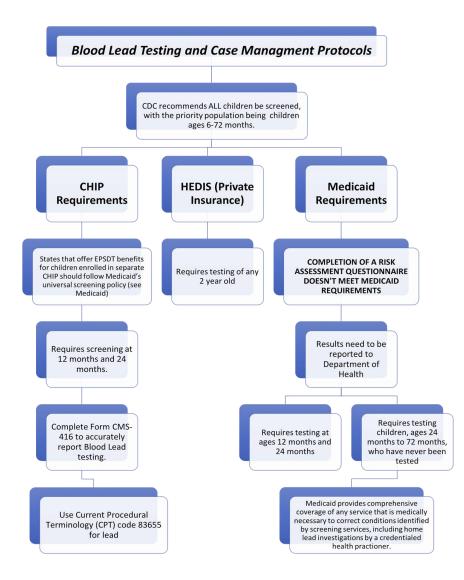


Never underestimate the population you will work with and the needs they will have Or what you will be made responsible for because of your degree

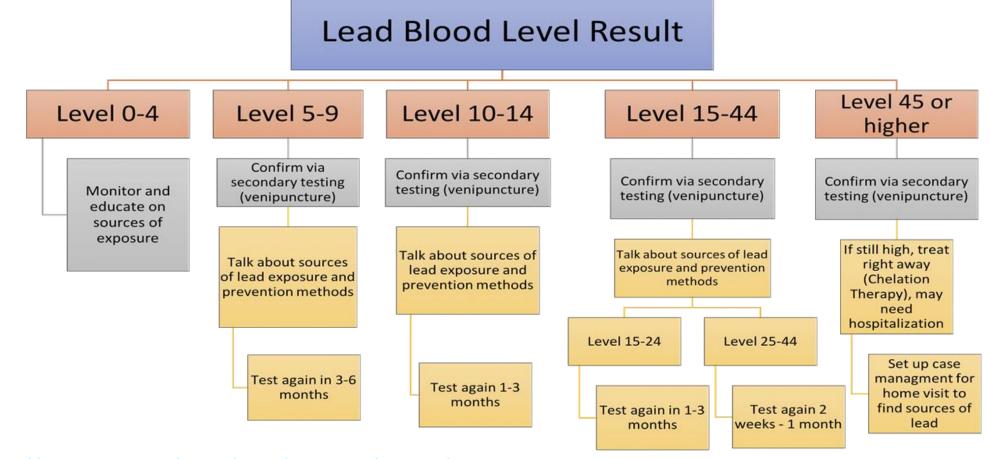
We trust your profession to lead our efforts Assessment Skills Prioritization Skills Delegating Education Rapport and interviewing skills Nursing Positions that are excellent HH and Lead Poisoning Prevention Opportunities:

- Public Health
   Department
- School Nurse
- Health Insurance Patient
   Liaison
- Emergency Room Nurse
- Pediatrician Office/Unit

- Family Nurse Practitioner/Office
- Academia\*
- Company Health Plan and Employee Health Advocate
- Church Health Office
- Family



https://www.medicaid.gov/federalpolicyguidance/downloads/cib113016.pdf



https://www.cdc.gov/nceh/lead/advisory/acclpp/actions-blls.htm

Where do I find community resources? Reach out to the Local Health Department for home assessment

https://www.naccho.org/membership/lhd-directory

Pediatric Environmental Health Specialty Units (PEHSU) can provide one on one consults

https://www.pehsu.net/

Funding for home assessment and remediation of lead-OLHCHH Grantee List grantees by state

www.hud.gov/healthyhomes



## History of the Lead Hazard Control Program

Over 250 Current Grant Awards in local communities

Over \$600 Mil in funding across grantees working right now

Over 200,000 units made lead safe across the nation since the program started over 20 years ago

Grant funding has reached all 10 Regions of the U.S.

Next stop is your hometown!

# National Lead Poisoning Prevention Week NLPPW



#### https://www.hud.gov/program\_offices/healthy\_homes/nlppw



### Learn more about OLHCHH

Please visit our grant program division website for additional information

www.hud.gov/healthyhomes

#### General Lead information/ resources

HUD Office of Lead Hazard Control and Healthy Homes	<ul> <li>www.hud.gov/lead;</li> <li>www.hud.gov/healthyhomes</li> </ul>
HUD Lead Regulations hotline:	<ul> <li>LeadRegulations@HUD.gov</li> <li>202-402-7698 (TTY: 800-877-8339)</li> <li>451 7th St SW (8236), Washington, DC 20410-3000</li> </ul>
National Lead Information Center	<ul> <li>800-424-LEAD (5323)</li> <li>www.epa.gov/lead</li> </ul>

# Questions





To receive credit...

We will send an email with a link from Clinical Directors Network within 1-2 days after the webinar.

You must complete to receive credit and the certificate will arrive within 1 week of completing the survey.



#### **National Nurse-Led Care Consortium**

**Learning Collaborative Series:** The Intersection of Environment, Housing, and Health

Part 2: Strategies for Improved Indoor Air Quality and Resident Health <u>Still time to register!</u>

Wednesday, November 13, 2019 @ 2:00 pm ET



#### **National Nurse-Led Care Consortium**

Remaining webinars for the Learning Collaborative Series:

Part 3: Climate Change and Considerations for Health Care

- Wednesday November 20, 2019 @ 2:00 pm ET
- NNCC will host an extra 30 minutes for "office hours"

Part 4: Exploring Neighborhood Factors that Impact Health

- <u>Wednesday, December 4, 2019 @ 2:00 pm ET</u>



Thank you!

#### **NNCC Contact Information**

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