



Sustainable  
Resources Center

# HEALTHY HOME PRINCIPLES AND LEAD POISONING PREVENTION

Presentation for Windom Park Neighborhood

November 28, 2023


Presenter: Rachelle Menanteau Peleska

# Overview of SRC

## SRC makes low-income homes healthy, safe and energy efficient

- ▣ Started 1977
- ▣ Currently 27 employees
- ▣ We conduct residential assessments, interventions, outreach, and training
- ▣ Our primary territory is Hennepin County

## ▣ Low Income Weatherization

- ▣ SRC is the largest DOE WAP service provider in MN
  - ▣ SRC administers programs including ones with CenterPoint and Xcel Energy
  - ▣ SRC maintains the largest and most certified low-income energy auditor and inspector team in MN
  - ▣ SRC primarily conducts “Whole House” energy retrofits
    - ▣ air sealing, wall and attic insulation, furnace replacement etc.
    - ▣ Latest technology/equipment
    - ▣ SRC conducts lighter energy efficiency visits via Home Energy Savings Program (HESP)
- 



## □ Lead Testing & Remediation

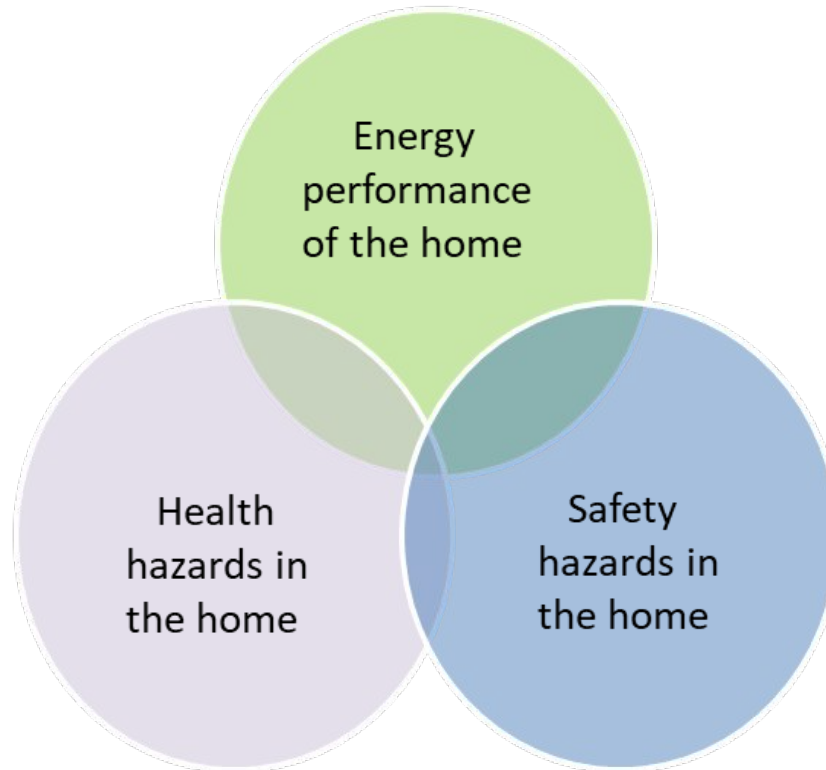
- SRC works with Hennepin County to administer HUD Lead grants which protect children from lead-based paint hazards.
- Licensed lead risk assessors conduct assessments using the HUD Paint Inspection Risk Assessment (PIRA)
- Work primarily results in replacement of lead painted windows in pre-1978 homes

## □ Lead Education, Outreach and Screenings

- Support from MDH, Hen. Co., City of Mpls, and medical providers
- In-home visits conducted to educate families and take samples
- Lead Screenings held to test hundreds of children each year for lead in their blood.
- SRC utilizes a mobile testing unit, nurses and a blood analyzer to bring testing opportunities to communities.



# SRC Philosophy: the house is a “system”



SRC recognizes that the health & safety of the home AND the building performance of the home are interrelated. We use an integrated approach that considers:

- ❑ People living in the home
- ❑ The structure
- ❑ Potential health hazards



# LINK BETWEEN HOUSING & HEALTH



**“The connection between health and the dwelling of the population is one of the most important that exists”. [1]**

***Florence Nightingale***

Cited in Lowry, S. BMJ, 1991, 303, 838-840



# WHAT IS HEALTHY HOUSING?

Healthy Housing is

- Designed,
- Constructed,
- Maintained, and
- Rehabilitated

in a manner that is conducive to good occupant health.



# WHY DO WE CARE?



Housing affects health both directly and indirectly:

- Physical, chemical, biological exposures
- Psychological

Young children spend about 70% of the time in their home.



# HEALTH CONDITIONS RELATED TO HOUSING

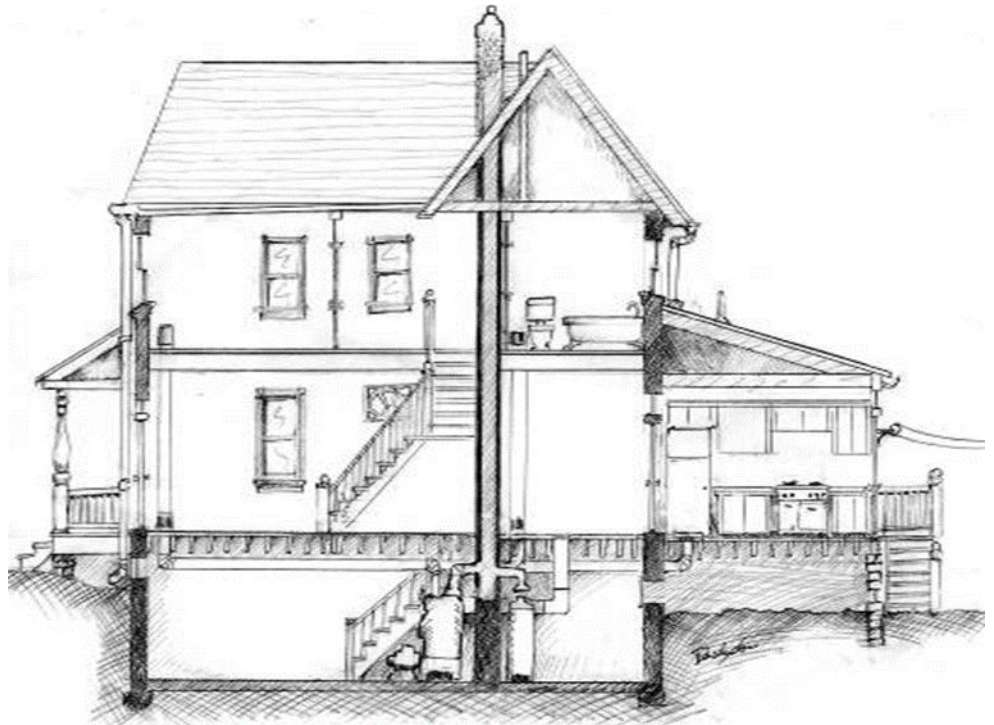
- Asthma—
  - dust mites, pet dander, roaches, mice, tobacco smoke, mold)
- Brain Damage - lead poisoning
- Behavior & Learning Problems - lead poisoning
- Lung Cancer - tobacco smoke, radon
- Injuries – slips, trips, falls
- Poisoning -
  - Lead-based paint, carbon monoxide, chemicals, pesticides)





# SEVEN HEALTHY HOMES PRINCIPLES

1. Dry
2. Clean
3. Ventilated
4. Pest-Free
5. Safe
6. Contaminant-Free
7. Maintained



# LEAD POISONING



# WHAT IS LEAD?



- Heavy, dull grey, ductile metallic element. Used in building construction, lead accumulators, bullets and shot, and is part of solder, pewter, bearing metals, type metals and fusible alloys.
- It is a neurotoxin. Not a normal part of our body.
- Lead holds color well and is cheap.



# A BRIEF HISTORY OF LEAD

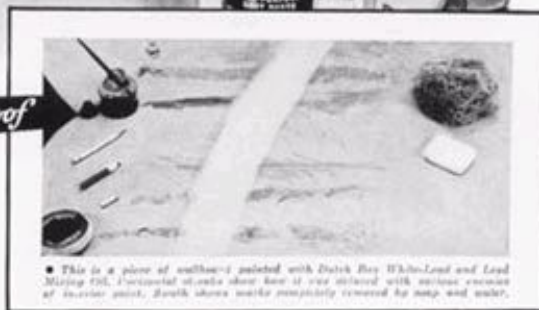
- Lead poisoning was first diagnosed by a doctor in Australia in 1895.
- 1921-National Lead Company (U.S.A.) admits that lead is a poison.
- During the 1930's lead-based paint is banned throughout much of Europe.
- In 1978 the U.S. bans lead based paint.
- Lead as an additive to “on-road” gasoline is banned in 1996.







*Here's Proof*



• This is a piece of wallboard painted with Dutch Boy White-Lead and Lead Mixing Oil. Vertical streaks show how it was rubbed with various grades of flannel cloth. Streaks show marks completely removed by soap and water.

WHEN you want to get the most for the money you spend on interior paint, don't ask "Is this paint durable?" Say, "Is it really washable?"

Durability alone is not enough. You have probably had many experiences with paint that didn't wear off but from which marks and smudges wouldn't wash off. So repainting time came much sooner than was expected.

Flat paint made with Dutch Boy White-Lead and Dutch Boy Lead Mixing Oil has all the durability for which white-lead is famous. In addition, this paint is washable in the full sense of the word. Its beauty is not impaired by hard scrubbing. Those scrubbing really get you somewhere. Stubborn stains and dirt actually do "come out in the wash."

For proof, take a look at the test panel above. It was walked on for a week. Then it was smeared with

grease, stained with mercuriochrome, streaked with pencil, crayon and lipstick, daubed with shoe blacking. But despite this hard treatment, washing with soap and water left the panel looking as clean as when first painted.

Now consider briefly this paint's many other advantages. It has all white-lead's characteristic richness, solidity and depth, a point of unusual beauty. Because of its excellent sealing power, it stops suction and hides fire cracks.

Finally, this paint gives you all-

round economy. It has high coverage (500 sq. ft. per gal. on smooth plaster), mixes quickly, spreads easily. Add up those three qualities, and you have low first cost. Then add long wear and real cleanliness, and you have low cost per year.

**NATIONAL LEAD COMPANY**

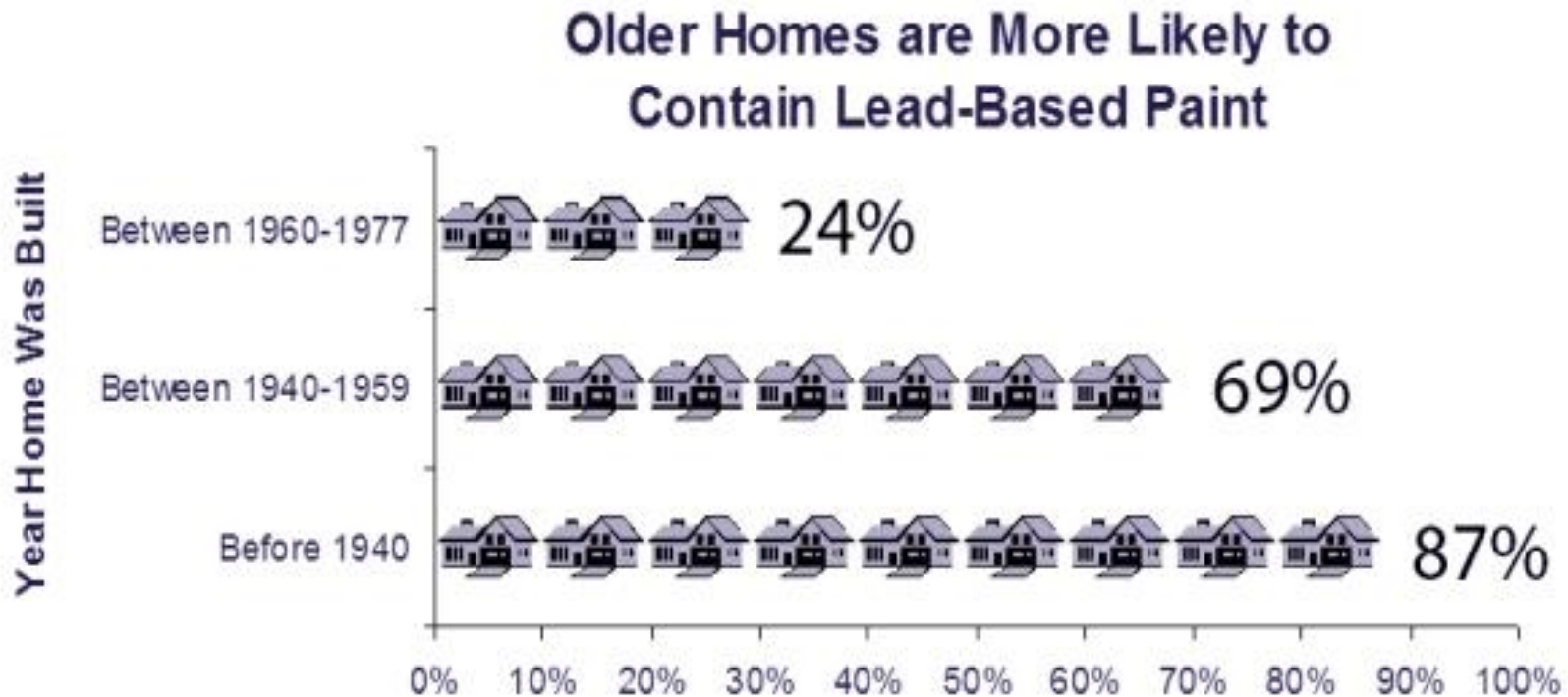
111 Broadway, New York; 115 Oak St., Buffalo; 909 N. 10th St., Chicago; 528 Exchange Avenue, Cincinnati; 4211 West Third St., Cleveland; 121 Flannery St., St. Louis; 1540 26th St., San Francisco; National Paints and Co., 400 Albany St., Boston; National Lead & Oil Co. of France, 116 Fourth Ave., Pittsburgh; John F. Lewis & Son, Co., Walnut Bldg., Philadelphia.



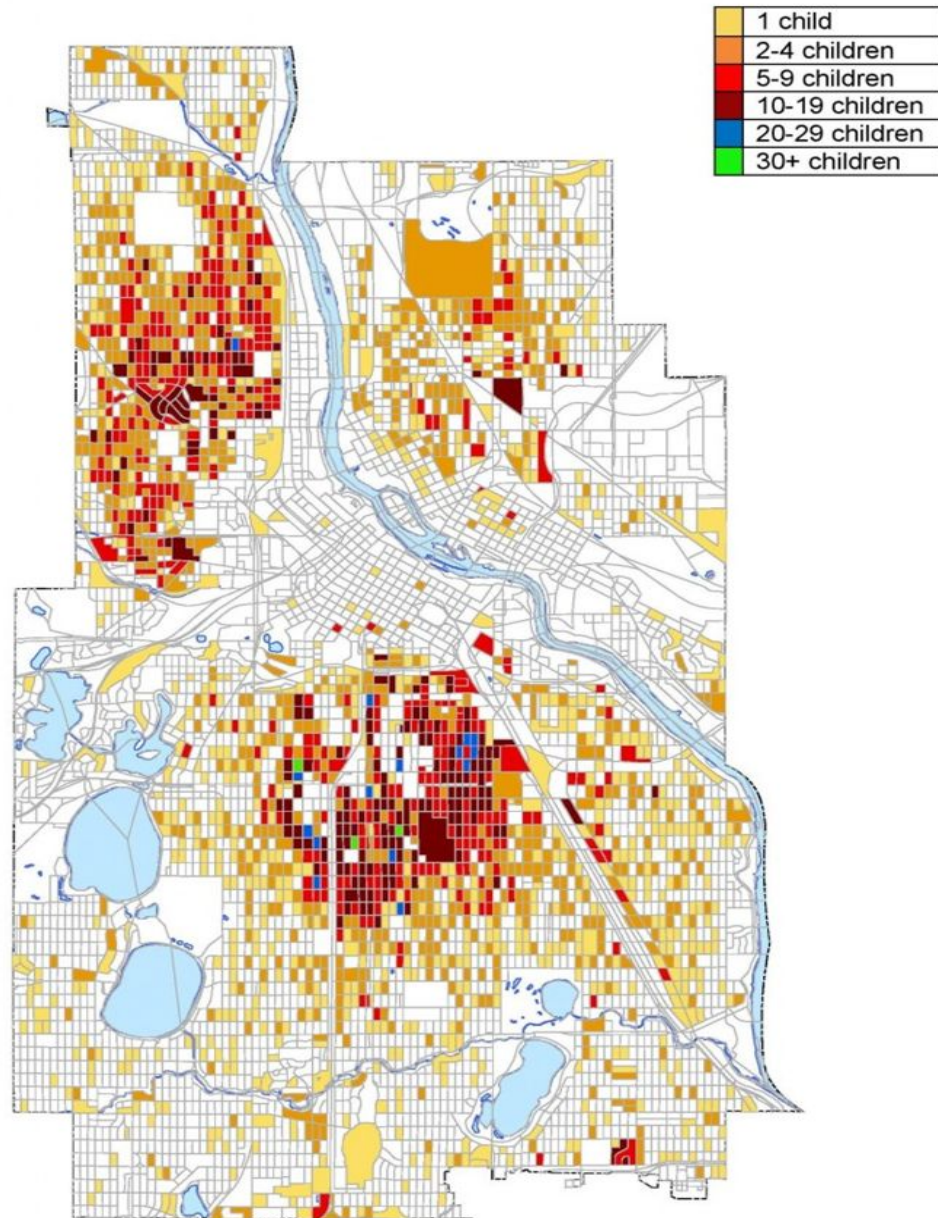
# 1937 - NATIONAL LEAD COMPANY AD IN MODERN HOSPITAL

## "TAKES A SCRUBBING"

# HOW WIDESPREAD IS LEAD-BASED PAINT IN HOUSING?



In Minneapolis, 80% of homes were built before 1978.





# EXAMPLES OF LEAD



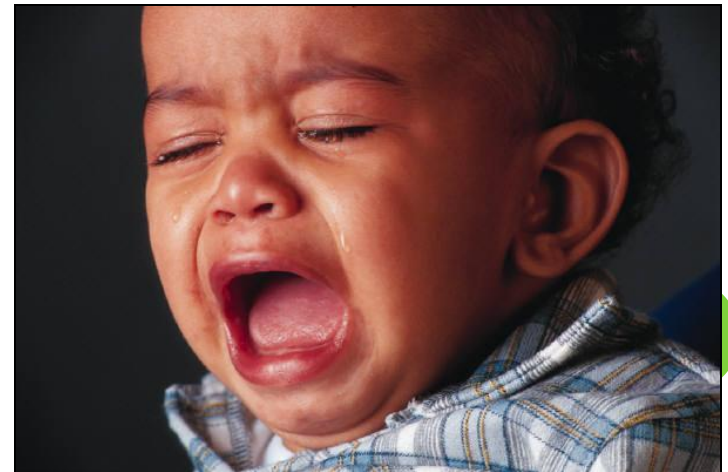


# EXAMPLES OF LE



# WHO'S AT RISK FOR LEAD POISONING?

- ❑ Children under 6
- ❑ Pregnant women
- ❑ People in high-risk occupations





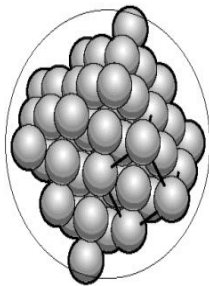
# HOW DOES LEAD ENTER THE BODY?

## HOW LEAD POISONS

Lead is a neurotoxin that can reduce a child's intelligence and cause a lifetime of behavioral and health problems. Despite this, lead is widespread in homes and yards throughout the nation.

### WHAT IS LEAD?

Lead is a bluish white metallic element (chemical symbol: Pb) commonly found in pipes and batteries, as well as old house paint and contaminated soil.

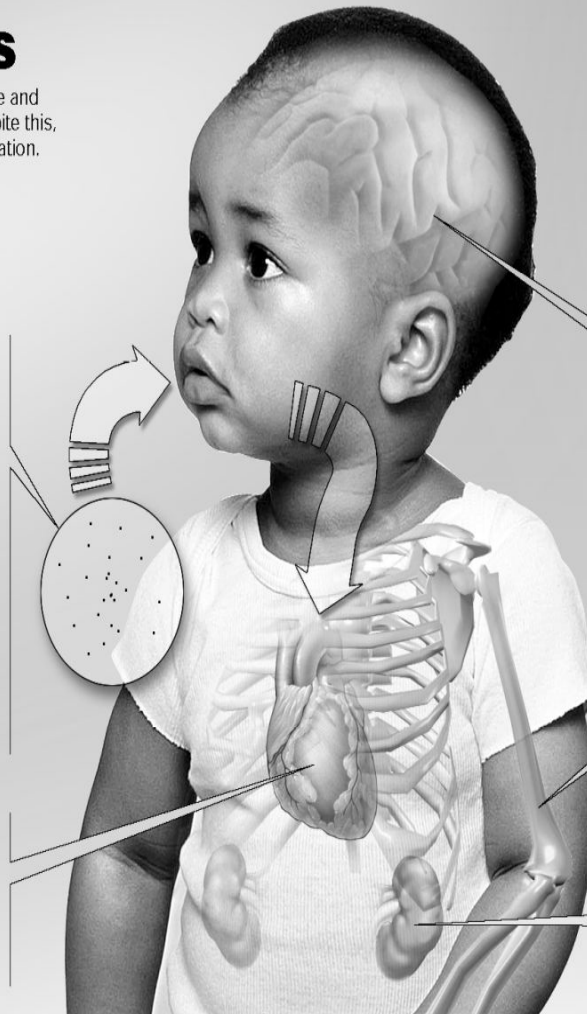


Lead was added to gasoline because it reduced engine knock. It was also an additive in paint because it made paint more durable. The United States banned lead from paint in 1978 and gasoline in 1986.

### HOW CONTAMINATION OCCURS

**ENTERING THE SYSTEM.** Tiny particles of lead may be found in many places, including soil, paint, air, water or household dust. These particles enter the body when they are ingested. Sometimes children will eat chips of peeling paint because they taste sweet. But often, poisoning occurs less obviously — simply by putting dusty hands or toys in their mouths or by breathing air that has lead dust in it.

**CIRCULATING PARTICLES.** Once inside the body, the particles move through the bloodstream to tissues and organs where the lead attacks the cells.



### ONCE INSIDE THE BODY

Lead particles damage or destroy cells that they come in contact with. Even a tiny amount of lead is dangerous. Some research says children can tolerate just 6 micrograms of lead — approximately 1/17 the size of a grain of salt — per day.

#### BRAIN

This is where lead does the most damage, especially in children younger than 6. Lead can permanently disrupt growing brain connections and stay in soft tissue for weeks or months. The result is decreased intelligence, learning disabilities and behavior problems, such as hyperactivity. Studies indicate a child will lose from two to eight IQ points for every increase of 10 in his or her blood-lead level.

#### BONES

While softer tissues hold lead for months, bones retain the particles for decades. Bones hold very high concentrations of lead. Some medical experts think bones also shed high amounts of lead back into the bloodstream, promoting further damage to organs.

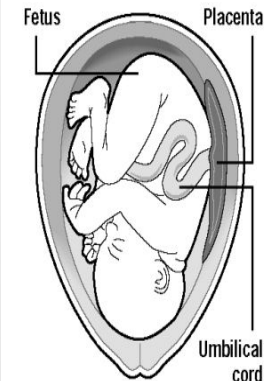
#### KIDNEYS

The kidneys serve as filters for liquid waste, but with lead particles, the kidney works like a sponge, holding high concentrations.

### LEAD POISONING ALSO AFFECTS ...

#### FETUSES

Lead particles from a pregnant woman can be passed to her fetus via the placenta. A fetus receives its nutrients from the mother's placenta which eliminates waste products through a filtering system.



#### ADULTS

Because their brains are already fully developed, adults are at less risk of lead poisoning. However, if unchecked, adults may suffer from reproductive difficulty, nerve and digestive disorders, high blood pressure, memory loss and reduced hearing ability.

# WHERE CAN YOUR CHILD BE EXPOSED TO LEAD?

Lead can be found throughout a child's environment.



Homes built before 1978 (when lead-based paints were banned) probably contain lead-based paint.



When the paint peels and cracks, it makes lead dust. Children can be poisoned when they swallow or breathe in lead dust.



Certain water pipes may contain lead.



Lead can be found in some products such as toys and toy jewelry.



Lead is sometimes in candies imported from other countries or traditional home remedies.



Certain jobs and hobbies involve working with lead-based products, like stain glass work, and may cause parents to bring lead into the home.



# HOW DOES LEAD POISONING HAPPEN?

- ❑ Housing built before 1978
- ❑ Normal hand-to-mouth activity
- ❑ It's the DUST!



# ALTERNATIVE SOURCES

## ▣ Children's Items

- Jewelry
- Lunch Boxes
- Toys and Trinkets



## ▣ Pottery

- Cooking pots & dishes
- Other imported items

## ▣ Folk Remedies

- Alarcon, Cora, Greta, Liga, Rueda, Azarcon

## ▣ Hobbies

- Stain glass
- Making fishing sinkers





**Lead has many sources including: imported foods and spices, beauty products and cosmetics, Ayurvedic Medicine, children's cheap jewelry/ toys, and religious/ cultural pendants.**



Bavan Khati mithai  
goli candy



Bavan Sugar  
Rewari Candy



Hans Sugar  
Rewari



Santra  
Candy



HB Rewari Gul-  
Flat (Jaggery  
Candy)



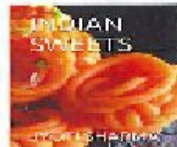
Laxmi Brand  
Rewadi (Jaggery)



Punjab Bazaar  
Rewari Gur  
Jaggery



Punjab Bazaar  
Sweet Rewdi



Jyoti Sharma  
Indian Sweets



Shah's Deer  
sesame  
candy/Gud  
Candy



Sindoor (from  
any source)



Kumkum (from  
any source)



Turmeric powder



Cumin  
powder/seeds



Garam Masala



Cultural/  
religious  
pendants



Vero Mango



Rebanaditas  
Candy



Tama Roen



Tamarindo



ROLLITOS DE  
TAMARINDO



Pelon Pelo  
Rico



Lucas Acidito



Margarita De  
Tamarindo



Pica Limon



Lucas Limon/Con Chile



CHACA CHACA



Serpentinas



Bolirindo Candy



Brinquitos



Fair and Lovely Anti Marks Face Cream



Fair and Lovely Ayurvedic Care Fairness Face Cream



POND'S White Beauty Face Cream



OLAY Natural White Cream



Hashmi Kohl Aswad, made in Pakistan



Hashmi Surma Special, made in Pakistan



Hashmi Kajal, made in Pakistan



Pure Kohol based on Zamzam



Glazed Pottery



Fishing tackle (especially sinkers and jig heads)



Ayurvedic Medicine (regardless where it was made)



Children's cheap toys and jewelry

**SRC can always collect samples of any spices, cultural products or cosmetics that you might have in order to test them for lead.**

**Contact us at 612-872-3282 or [r.peleska@src-mn.org](mailto:r.peleska@src-mn.org)**



# WHAT ARE THE EFFECTS OF LEAD POISONING?

- Lead is not natural to the body.
- There is no safe lead limit.
- In 2012, CDC revised definition of childhood lead poisoning to a venous blood lead level of 5ug/dl or above.
- **Health Effects of Blood Lead Level 5+**
  - Learning disabilities
  - Impaired growth and hearing
  - IQ decline
  - Aggressive behavior problems
  - Irreversible damage!



# THE IMPACT

**535,000**

U. S. children ages 1 to 5 years have blood lead levels high enough to damage their health.



**24 million**

homes in the U.S. contain deteriorated lead-based paint and elevated levels of lead-contaminated house dust.



**4 million** of these are home to young children.

It can cost

**\$5,600**

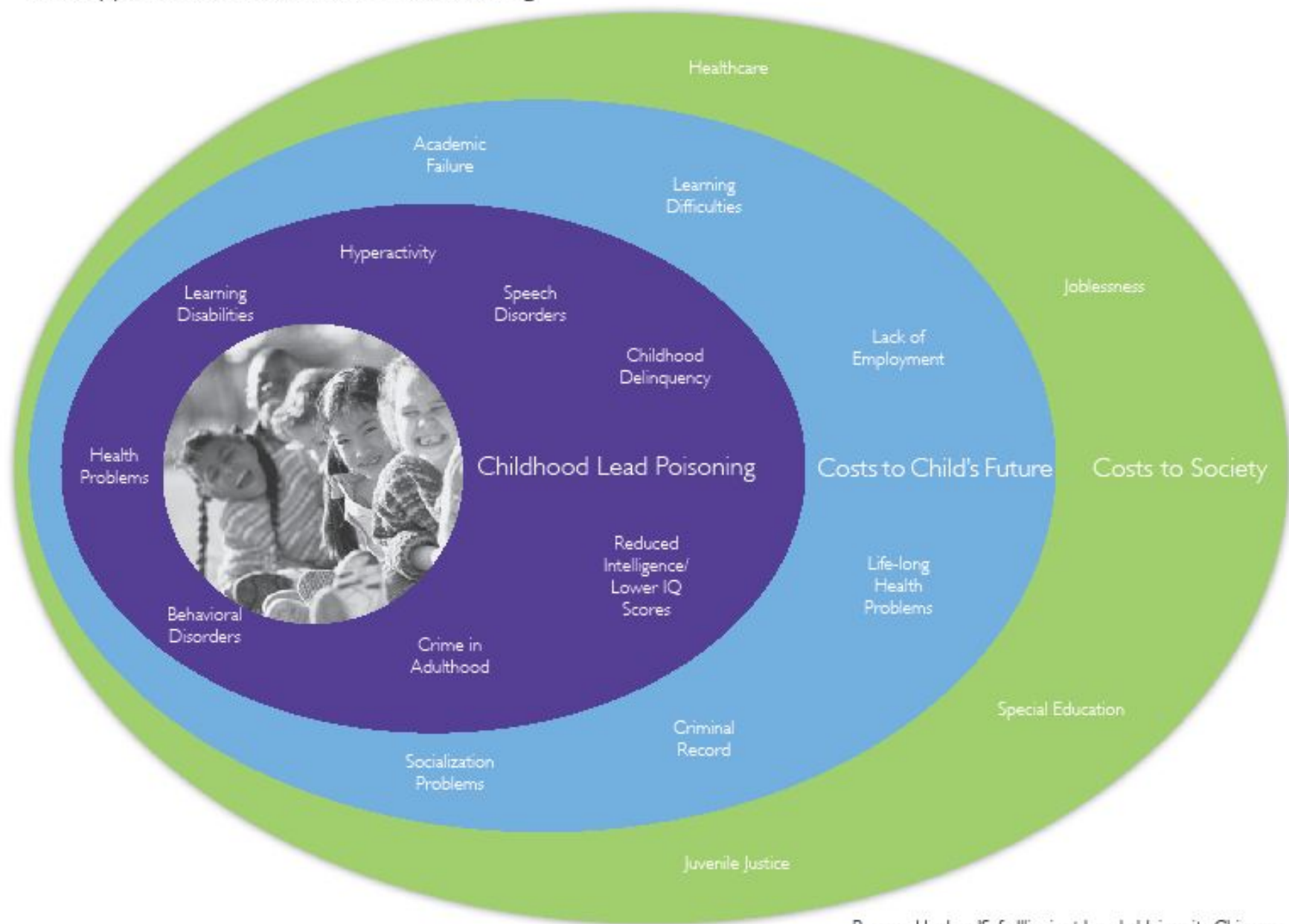


in medical and special education costs for each seriously lead-poisoned child.

The good news:

Lead poisoning is **100%** preventable.

## The Ripple Effects of Childhood Lead Poisoning





# WHAT ARE THE SYMPTOMS?

Easily misdiagnosed, thus delaying effective treatment and increasing the likelihood of permanent physical and mental damage



# HOW CAN YOU TELL IF A CHILD HAS BEEN EXPOSED TO LEAD?

## □ Blood Lead Test!

- All children who are 1-5 yrs old
- Testing is required at 12 and 24 months for all children on MA
- Pregnant and breastfeeding women
- People in high-risk occupations





# WHAT CAN YOU DO TO KEEP KIDS LEAD SAFE?



# LEAD SAFE LIVING FOR

- ❑ Complete the visual inspection
- ❑ Lead safe cleaning
- ❑ Wash children's toys frequently
- ❑ Leave shoes at the door
- ❑ Regular hand washing
- ❑ Foods that are high in calcium, vitamin C, iron
- ❑ Stay away from chipping paint





# LEAD SAFE WORK PRACTICES

- Know when the home was built & test it
- Work WET
- Use a HEPA Vac & HEPA Mask
- Protect yourself with protective clothing
- When in doubt call a lead professional





# WINDOW REPLACEMENT GRANT PROGRAM



## Requirements:

- ❑ FREE home visits to identify lead hazards
- ❑ Assist in grant programs and resources
- ❑ Available to families, homeowners and landlords
- ❑ Home built before 1978
- ❑ Child under 6 yrs., visiting child or pregnant woman
- ❑ Live in Hennepin County
- ❑ Meet low-income guidelines





**Sustainable  
Resources Center**

1081 Tenth Ave., S.E., Minneapolis, MN 55414  
(612) 870-4255 www.src-mn.org

PLEASE FAX TO ATTN:

Education and Outreach Dept.  
FAX NUMBER: (612) 870-0729

## **Sustainable Resources Center Advocacy, Education, Assistance Referral Form**

### **Referral Request:**

- ☐ Lead Poisoning Prevention  
    ☐ Baby Safe at Home (needs to  
        qualify for lead program)  
☐ Healthy Homes Assessment

- ☐ Energy Savings/Weatherization  
☐ Other home health concerns:  
\_\_\_\_\_

### **Family Information:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Alternative Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Language Spoken in the Home: \_\_\_\_\_

---

**Referring Staff Name:** \_\_\_\_\_

**Referring Organization:** \_\_\_\_\_

**Phone**  
**Number:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Notes:**



# THANK YOU AND STAY SAFE!

Rachelle Menanteau Peleska, MPH

Sustainable Resources Center

1081 10th Ave SE

Minneapolis, MN 55414

(612) 872-3282

[r.peleska@src-mn.org](mailto:r.peleska@src-mn.org)

[www.src-mn.org](http://www.src-mn.org)



Sustainable  
Resources Center

