

The True Cost of Lead

Family, Economic, & Societal Costs



Welcome! The event will begin soon.



Today's Agenda

- Welcome and logistics
- Presentation: The True Cost of Lead
 - Maps of Lead Poisoning in Michigan
 - Housing Poll
 - Health Costs of Lead
 - Discussion with Dr. Rhonda Conner-Warren
 - Economic Costs of Lead
 - Breakout session
- Question and answer session
- Closing remarks



Schedule of Remaining Events

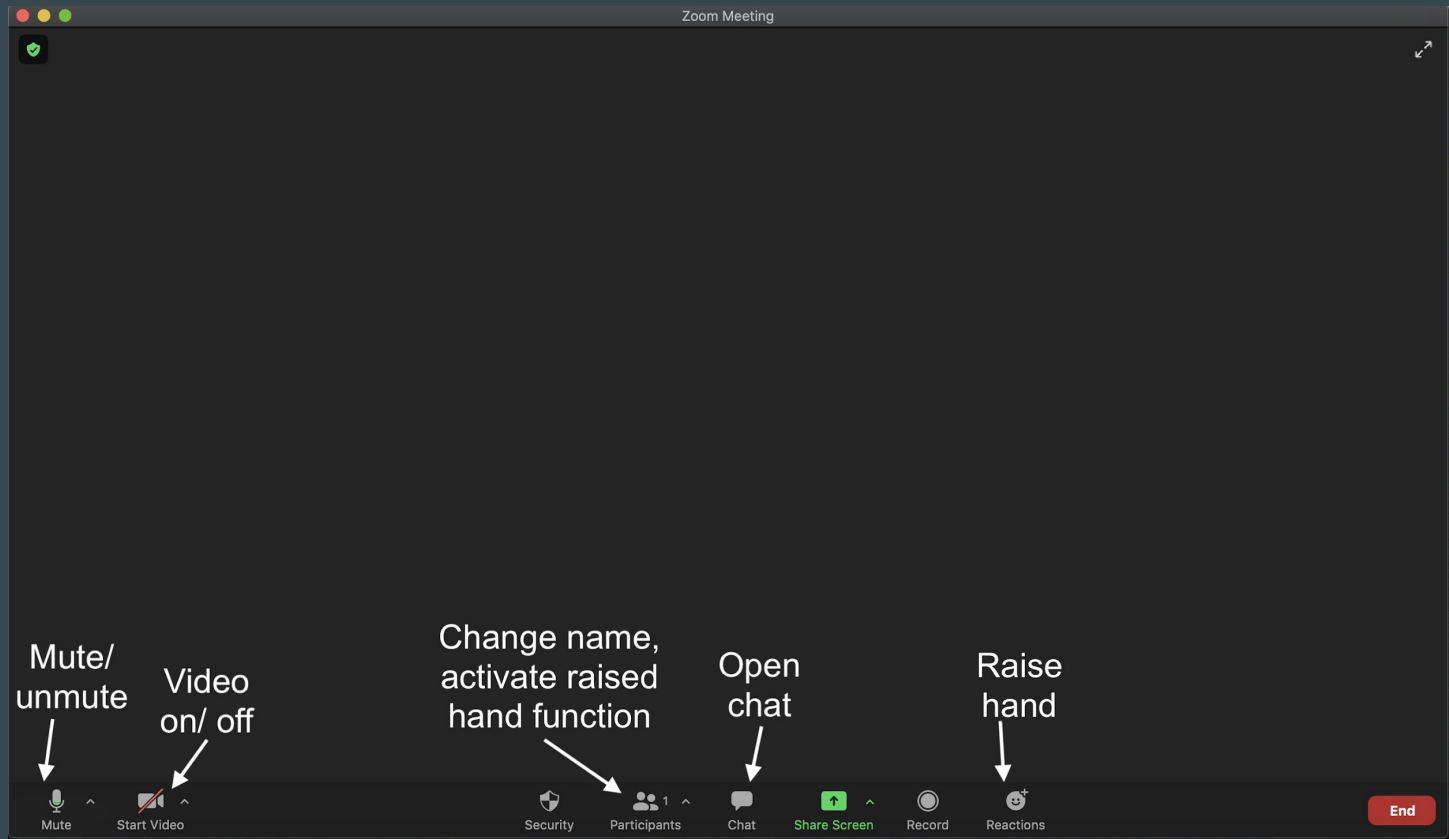
July 15	Creating a Parents' Advocacy Platform to End Lead Poisoning
August 19	Where Do We Go From Here?: Next Steps
September TBD	Advocacy Day: Families and Health Professionals
October 7	Graduation and Celebration



Welcome and Logistics

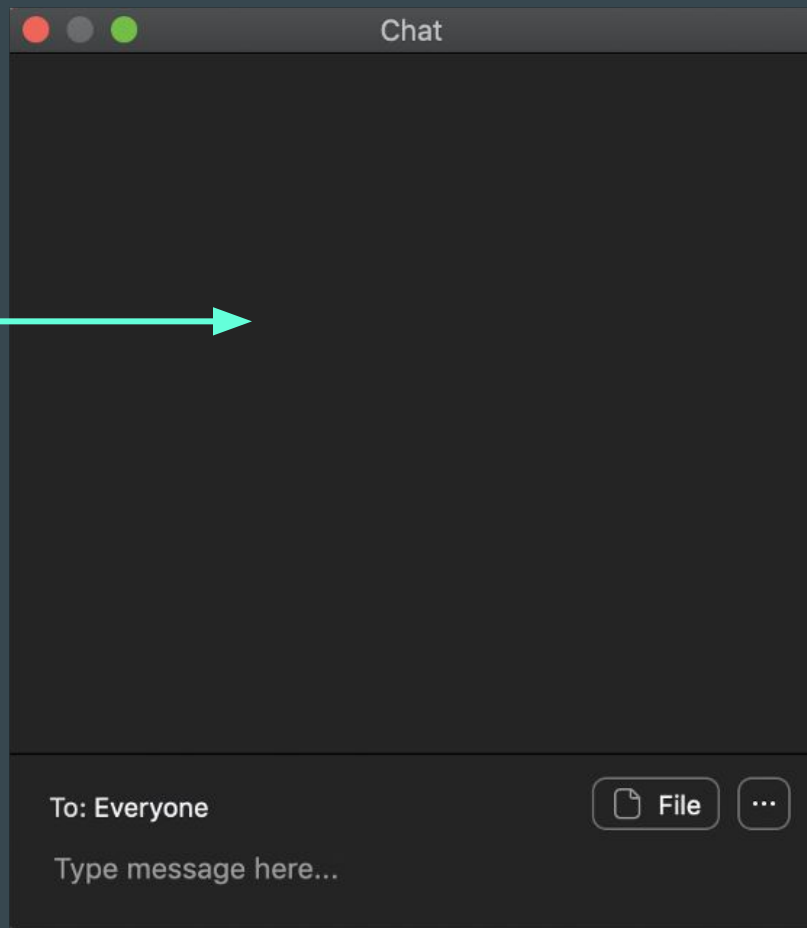
- Thanks for being here!
- Today's meeting is scheduled to end at 6:30pm
- Zoom reminders
 - Cameras encouraged but not required.
 - It's OK if we see your kids, pets, food, etc--we get it!
 - Please remain muted unless you are speaking
 - If you lose connection, just log back on
 - If you have technical issues, please use the chat box or contact an organizer (liftorganizers@ecocenter.org)



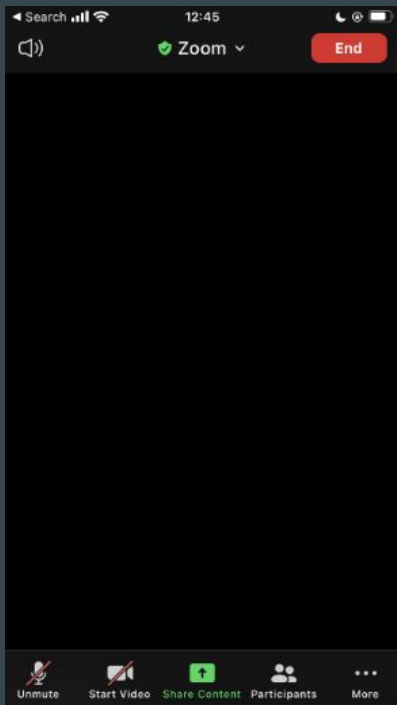


Zoom Chat on Computer

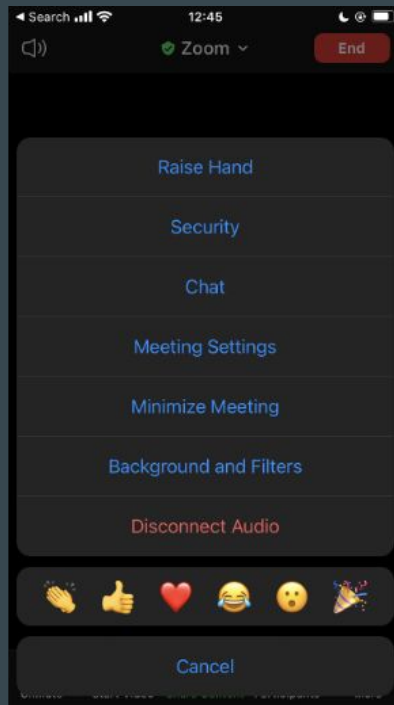
- Click the chat button at the bottom of your screen
- This box will pop up
- Type your message at the bottom
- Hit 'enter' on your keyboard to send message
- Will be shared with entire group
- Others' messages will appear above



Zoom Chat on Phone App



Tap 'more' at bottom of screen



Tap 'chat'



Type message below, all messages will appear above

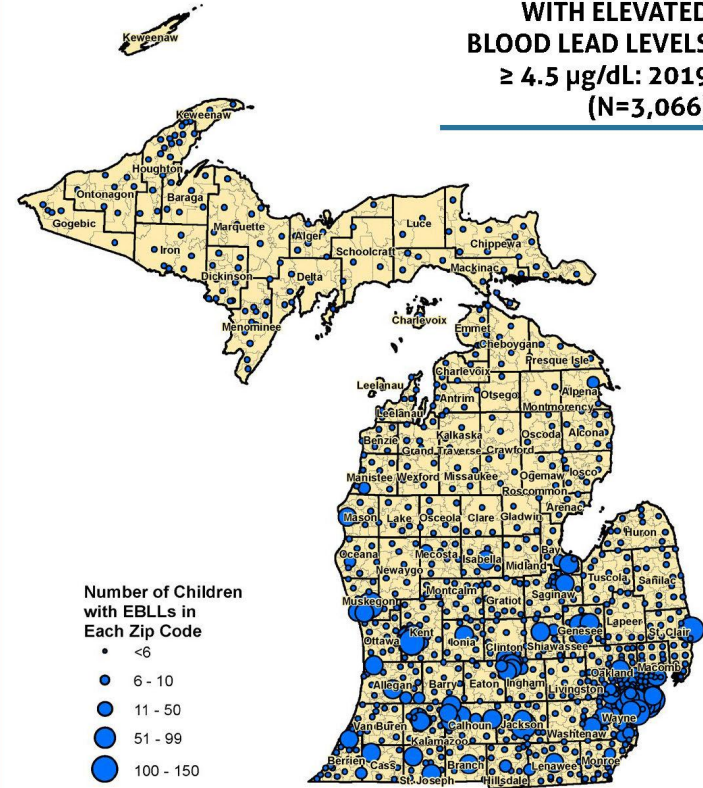


Maps of Childhood Lead Poisoning in Michigan



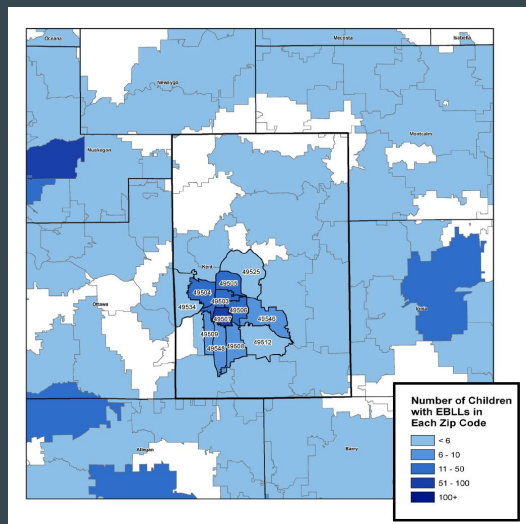
ECOLOGYCENTER
Healthy People, Healthy Planet

**MICHIGAN CHILDREN
LESS THAN AGE 6
WITH ELEVATED
BLOOD LEAD LEVELS
 $\geq 4.5 \mu\text{g/dL}$: 2019
(N=3,066)**

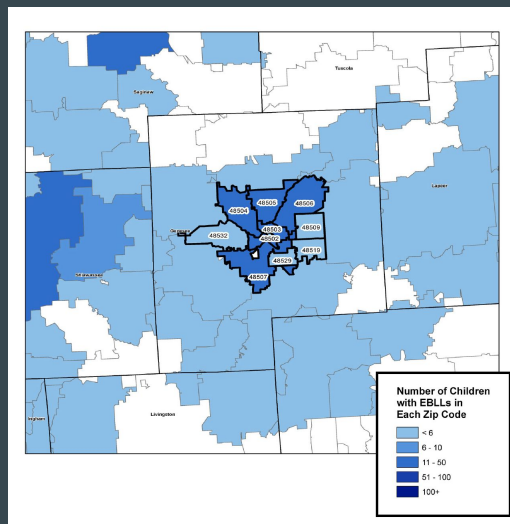


Source: MDHHS Data Warehouse

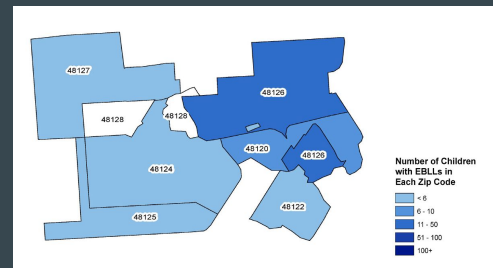
Childhood Lead Poisoning in Michigan



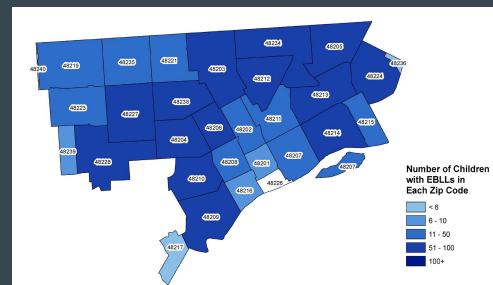
Kent County



Genesee County



Dearborn



Detroit



Pre-1978 Housing Poll

The Health Cost of Lead Poisoning



Exposure to Lead

- Please see “Orientation and Lead 101” slides and relevant fact sheets in your binder for detailed info on the sources of and ways we are exposed to lead

Orientation and Lead 101

Webinar Recording



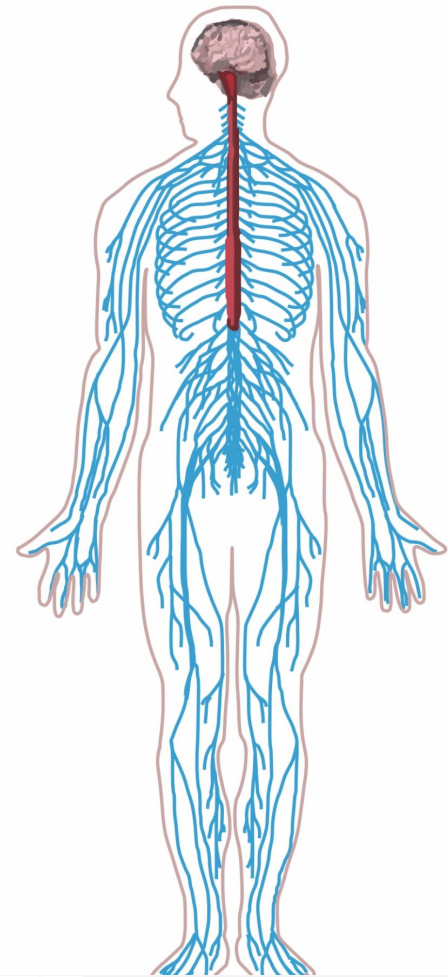
Downloads

 LIFT Orientation and Lead 101 Slides



Health Impacts of Lead

- There is no safe level of lead exposure
- Once it enters the body, lead is distributed to organs such as brain, kidneys, liver, and bones
- Lead is stored in bones and teeth, accumulating over time
 - Can be remobilized into the blood during pregnancy, exposing the fetus
- Damages brain and nervous systems, leading to lasting developmental and health problems



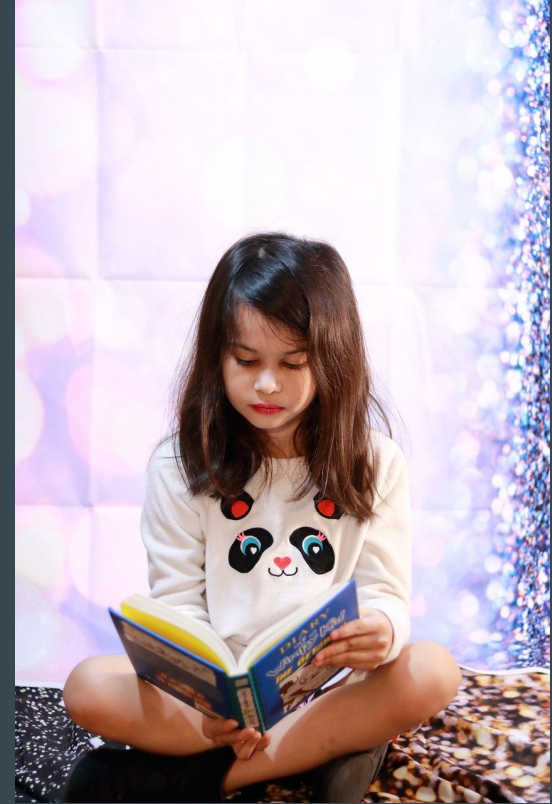
Health Impacts of Lead

- In kids, lead poisoning is linked to antisocial behaviors like ADHD, aggression, hyperactivity, bullying.

Learning challenges like reduced ability to pay attention, and poor problem solving skills

In adults, lead poisoning is linked to hypertension, hearing loss, osteoporosis, Parkinson's, kidney damage, reproductive issues, and social and behavioral challenges

- These health impacts translate into costly life-long learning and behavioral problems



Lead Poisoning and Crime

- Childhood lead exposure is linked to criminal behavior in juveniles and adults
- An estimated 10% of juvenile delinquency attributed to lead poisoning
- In 2014, there were 214,442 reported crimes (burglaries, robberies, aggravated assaults, rape, murder) in Michigan; 6,585 of those were linked to childhood lead exposure



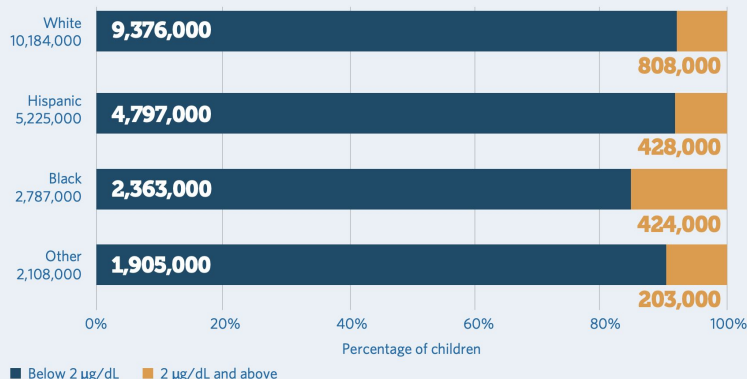
Racial Disparities in Lead Poisoning

- Studies have shown Black children (and to a lesser extent, Hispanic children) are poisoned by lead at a higher rate than white children.
- Children living in low-income households are also more likely to be poisoned by lead
- 28% of Black households and 29% of low-income households face housing-related lead exposure risk vs 20% white and 18% wealthier households

Figure 2

All Children Face Some Exposure Risk, but Racial and Ethnic Disparities Persist

Share and number of 1-5-year-olds with blood lead levels below and above 2 µg/dL by race and ethnicity, 2011-14



What can you do to help kids who are lead poisoned

- Healthy eating habits can help prevent further lead absorption
 - Health problems can be dissipated by increasing calcium, vitamin c, and iron intake
-
- **Calcium:** dairy (ice cream, yogurt, milk, cheese), eggs, broccoli, spinach
 - **Vitamin C:** broccoli, corn, tomatoes, peppers, onions, avocados, dark green leafy vegetables, oranges, grapefruit, melons
 - **Iron:** meat and seafood, beans, dark leafy greens, eggs, peanut butter, almonds, whole grains, prunes



Educational and Other Support Resources

- United Way: Call 211 for help on a variety of issues
 - unitedwaysem.org/get-help/community-resources/
- Wayne Metro: Call 313-388-9799
 - www.waynemetro.org/
- Early On: Call 1-800-EARLYON for educational resources for kids 0-3 years old
 - www.1800earlyon.org/
- Cooking Matters from Gleaners Community Food Bank
 - www.cookingmattersdetroit.org/learn-at-home
- Our Kitchen Table
 - oktable.files.wordpress.com/2020/03/growing-community-justice-and-food-1-1.pdf



Discussion with Dr. Rhonda

Dr. Rhonda Conner-Warren PhD, RN,CPNP-PC

Assistant Professor Health Programs Michigan State University College of Nursing

- Nurse for 30+ years
- Pediatric Nurse Practitioner
- Practice: Ingham County Health Department-Willow Health Center
- Past practice: DMC School based Health Centers ion James Campbell and Redford High School
- Academic: Undergrad and graduate level teaching
- Service:
 - COVID Immunization Task force Coordinator
 - Focus Hope Detroit-HSAC
 - The Corner Health Center
 - Perfecting Church ERT

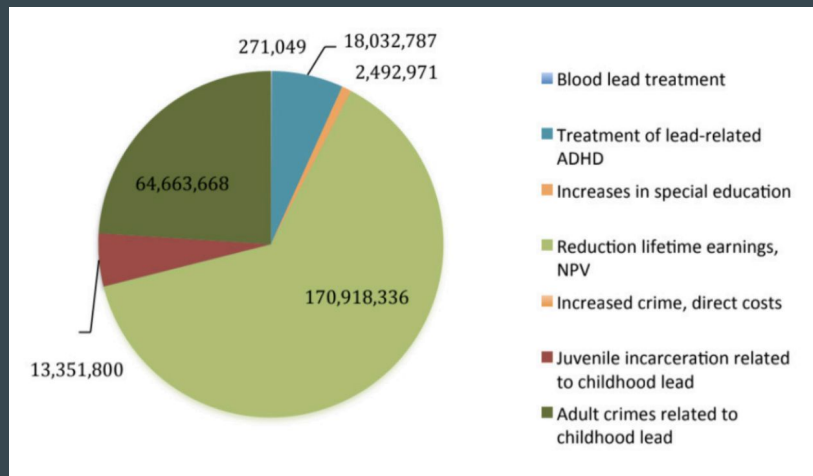


The Economic Cost of Lead Poisoning



Annual Cost of Childhood Lead Poisoning in Michigan

- Annual cost of lead poisoning in Michigan is nearly \$270 million, \$112.5 of which is bore by taxpayers (2014)
 - Increased need for health care: over \$18M
 - Increased crime: over \$77M
 - Special education: approx \$2.5M
 - Decreased lifetime earnings: approx \$171M



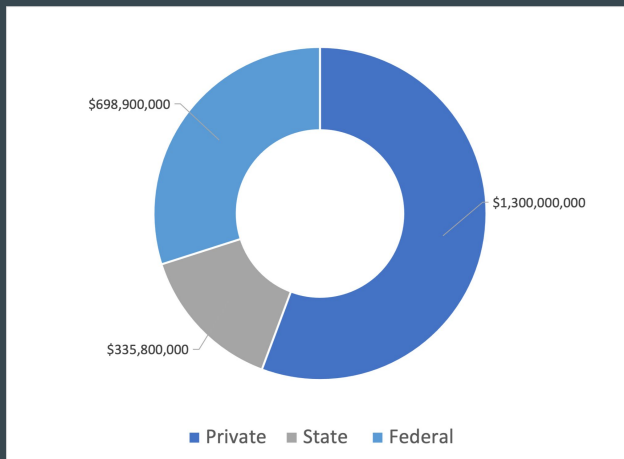
Annual Cost of Childhood Lead Poisoning in Michigan

- The annual cost of lead poisoning per child in Michigan in 2014 was \$48,080
 - City of Detroit: \$90,198,680
 - Wayne County (excluding Detroit): \$19,664,850
 - Genesee County: \$8,558,297
 - Kent County: \$22,597,750



Lifetime Economic Burden of Childhood Lead Poisoning in Michigan

- \$2.3 billion (for kids born in 2019)
 - Includes costs of reduced lifetime productivity; increased health care, education, and social assistance spending; and premature mortality
- Cost breakdown (groups that bare the cost mentioned above)
 - Private: \$1.3B
 - State: \$335.8M
 - Federal: \$698.9M



Prevention Is the Most Cost Effective Solution

- Abatement and remediation of at-risk homes would reduce lead exposure and associated costs, but it's very expensive
- Relocation to a lead-safe home is another important option to consider
- Additional information on strategies to keep your kids lead-safe can also be found at:
 - epa.gov/lead
 - michigan.gov/mileadsafe/



Breakout Session

In your small group, discuss something you learned today that you didn't know before or that surprised you.

Poll

To help us improve future events, please answer these questions:

1. Overall, how do you feel about tonight's session?
 - **A multiple choice poll will pop up on your Zoom screen**
 - Available on computer and smartphone app
2. What would you like to learn more about in future training sessions?
 - **Put your answer in the chat**
 - Click the “chat” button at the bottom of your Zoom screen, type your answer in the chat box, and hit “enter” to submit



Next Events

- Creating a Parents' Advocacy Platform to End Lead Poisoning
 - July 15th
 - 5:00 – 6:30pm
- Where Do We Go From Here?: Next Steps
 - August 19th
 - 5:00 – 6:30pm

