Ohio Legislative Children's Caucus

Learning, connecting, and problem-solving together. Our children are counting on us.

Strengthening State Efforts to Keep Children Safe from Lead

October 18, 2021

Welcome!

Opening comments from our caucus co-chair,

Representative Allison Russo

Dr. Harvey Kaufman,

Senior Medical Director,

Medical Informatics at Quest Diagnostics

Time to Eliminate Lead Poisoning

Harvey W. Kaufman, M.D.

Senior Medical Director

Quest Diagnostics

Critical step is testing

“Ohio law requires all healthcare providers to administer blood lead tests to children at age 1 and 2, or up to age 6 if no previous test has been completed based on the following criteria: the child is on Medicaid, lives in a high-risk ZIP code, or has certain other risk factors.”

Source: Childhood Lead Poisoning Information For Healthcare Providers | Ohio Department of Health

Original Investigation

ONLINE FIRST

September 27, 2021

Individual- and Community-Level Factors Associated With Detectable and Elevated Blood Lead Levels in US Children

Results From a National Clinical Laboratory

Marissa Hauptman, MD, MPH[1,2]; Justin K. Niles, MA[3];

August 2016

THE JOURNAL OF PEDIATRICS • www.jpeds.com

ORIGINAL ARTICLES

Blood Lead Levels in Young Children: US, 2009-2015

Leland F. McClure, PhD, Justin K. Niles, MA, and Harvey W. Kaufman, MD

Editorial

ONLINE FIRST

September 27, 2021

It's Time to End Lead Poisoning in the United States

Philip J. Landrigan, MD, MSc[1]; David Bellinger, PhD, MSc[2,3]

» Author Affiliations | Article Information

JAMA Pediatr. Published online September 27, 2021. doi:10.1001/jamapediatrics.2021.3525

Quest Diagnostics

Quest Diagnostics Health Trends® Studies: Ohio

2016 study (*Journal of Pediatrics*)

- Ohio was fourth among states
  - May 2010-April 2011 — 8.96% with ≥5.0 µg/dL
  - May 2014-April 2015 — 5.70% with ≥5.0 µg/dL
  - May 2010-April 2015 — 6.97% with ≥5.0 µg/dL
    1.67% with ≥10.0 µg/dL

2021 study (*JAMA Pediatrics)*

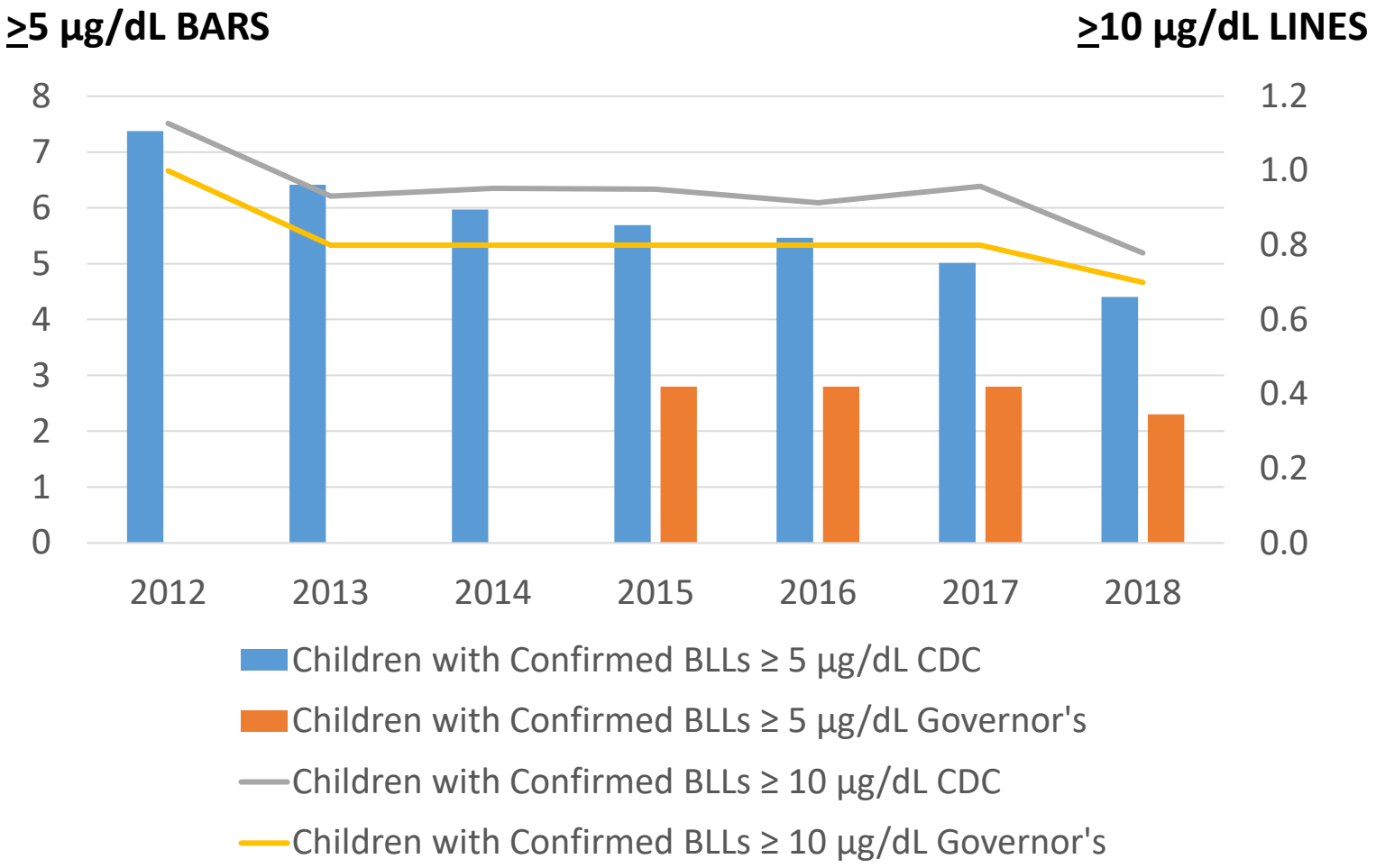
- 52% with detectable blood lead level (BLL) of ≥1.0 µg/dL versus US average of 50.5%
- 5.2% with elevated BLL of ≥5.0 µg/dL versus US average of 1.9%

CDC (2018) data: 4.4% with elevated BLL of ≥5.0 µg/dL versus US average of 2.6%

Key drivers of detectable and elevated BLL:

- Old housing
- Poverty
- Medicaid

Data discrepancy between CDC Ohio-reported data and recent Recommendations of the Governor's Lead Advisory Committee Report



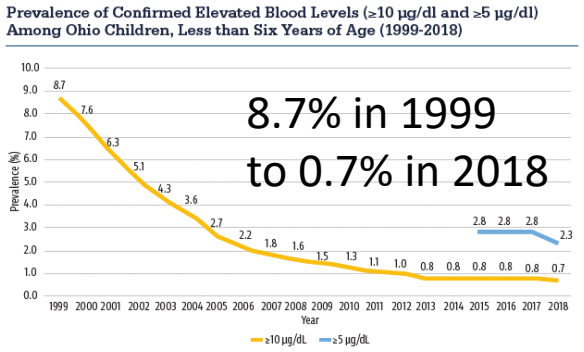
Understanding data is challenging.

Who was tested and what bias does that introduce?

Who had confirmatory testing and when?

Pediatric Lead: Ohio and US-reported states (not all states): Percent tested with ≥5.0 µg/dL (blue/green) and ≥10 µg/dL

Tremendous Progress
In Ohio but more to go

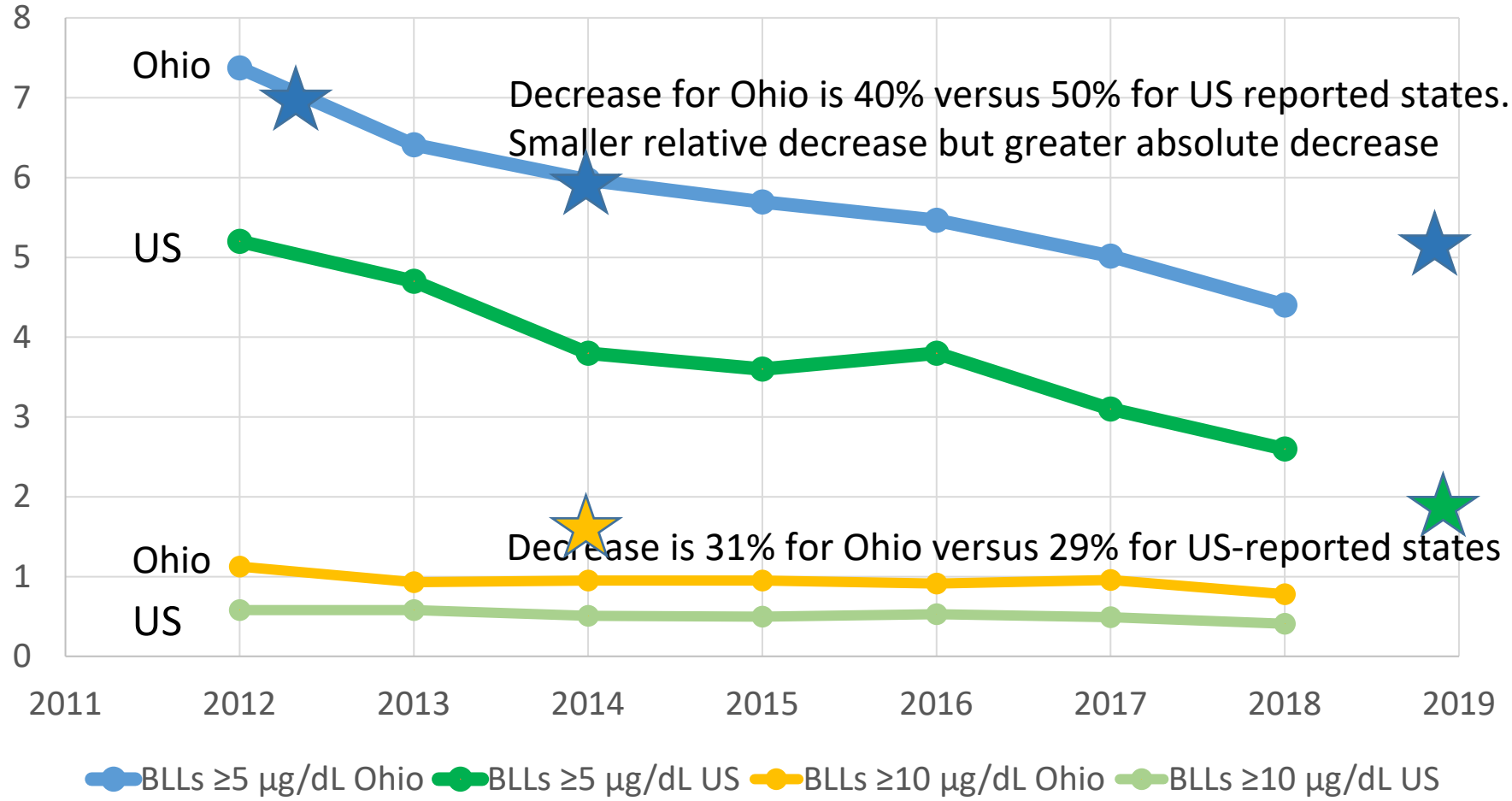


8.7% in 1999
to 0.7% in 2018

92% decrease from 1999 to 2018 in children with BLL ≥10 ug/dL.

Source: Recommendations of the Governor's Lead Advisory Committee Report (January 2021)

Ohio, May '10-Apr '11



Source: Lead Data and Statistics | CDC

Quest Diagnostics data

Takeaways

- Ohio has among the best lead programs in the country with a long history of progress.
- Use one set of reliable data: The *Ohio Healthy Homes and Lead Poisoning Prevention Program*
- More than 67 percent of all housing units in Ohio were built before 1980
- Ohio is number 2 in lead pipes
- Approximately half of children in US have detectable blood lead levels
- **Great progress made but more is needed.**

Dr. Matthew Tien,

General Pediatrician with the MetroHealth System,

Co-Chair MetroHealth Lead Coalition and Assistant Professor of Pediatrics CWRU SOM

Blood Lead Testing Requirements

For Ohio Children less than 6 Years of Age

Ohio Department of Health
Ohio Healthy Homes and Lead Poisoning Prevention Program • www.odh.ohio.gov

There is no safe level of lead in the blood.

- All capillary (finger/heel stick) test results ≥ 5 µg/dL must be confirmed by venous draw. Point of care instruments such as the LeadCare® II cannot be used to confirm an elevated blood lead level, even if the sample is collected by venipuncture.
- Any confirmed level of lead in the blood is a reliable indicator that the child has been exposed to lead. All blood lead test results, by law, are required to be reported to ODH by the analyzing laboratory.
- The Ohio Healthy Homes and Lead Poisoning Prevention Program will respond accordingly to all blood lead levels of 5 µg/dL or greater.

• **If the family answers "Yes" or "Do not know" to ANY of the questions below then TEST – IT'S OHIO LAW!**
  ○ **TEST! at ages 1 and 2 years.**
  ○ **TEST! between ages 3 and 6 years if the child has no test history.**
• **If the family answers "No" to all questions, provide prevention guidance and follow up at the next visit.**
	Yes	Do not know	No

1. Is the child on Medicaid?	☐	☐	☐
2. Does the child live in a high zip code? (See list on back of this form.)	☐	☐	☐
3. Does the child live in or regularly visit a home, child care facility or school built before 1950?	☐	☐	☐
4. Does the child live in or regularly visit a home, child care facility or school built before 1978 that has deteriorated paint?	☐	☐	☐
5. Does the child live in or regularly visit a home built before 1978 with recent ongoing or planned renovation/remodeling?	☐	☐	☐
6. Does the child have a sibling or playmate that has or did have lead poisoning?	☐	☐	☐
7. Does the child frequently come in contact with an adult who has a hobby or works with lead? Examples are construction, welding, pottery, painting			
8. Does the child li… recycling plant o…			

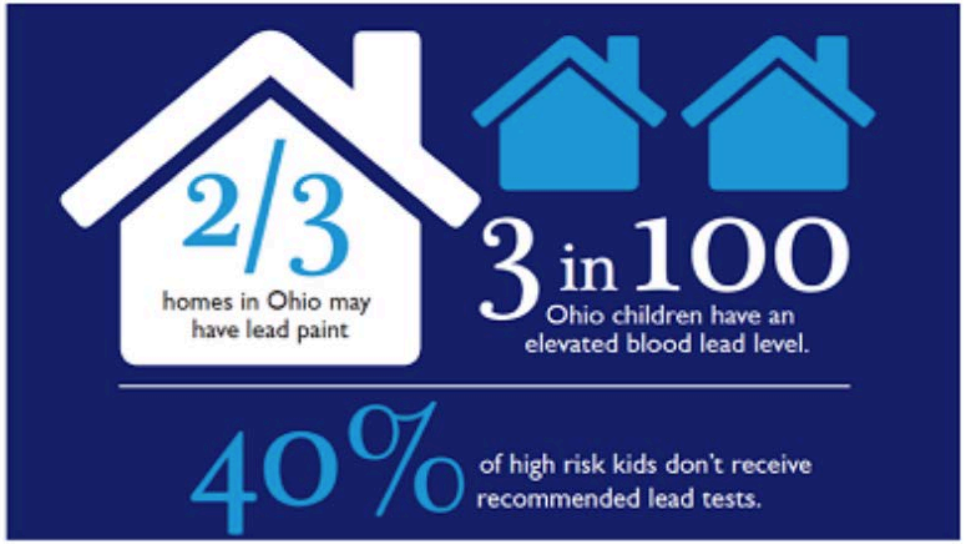
There is a lot to juggle when caring for kids!

Ohio AAP Lead QI project was a great opportunity

Prevention, Screening, Care

Lead-Free OHIO

Ohio Chapter
INCORPORATED IN OHIO
American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®



Work…together!

POPULATION HEALTH
FAMILY MEDICINE
MAIN CAMPUS
QUALITY
PEDIATRICS
NURSING
SCHOOL HEALTH
MED-PEDS
SATELLITE CLINICS
FOSTER CARE
INSTITUTE FOR H.O.P.E.
LAB SERVICES

System quality goal

% of patients with lead test by 2nd birthday

Baseline *(2019)*: **57%**

MetroHealth
Lead Coalition

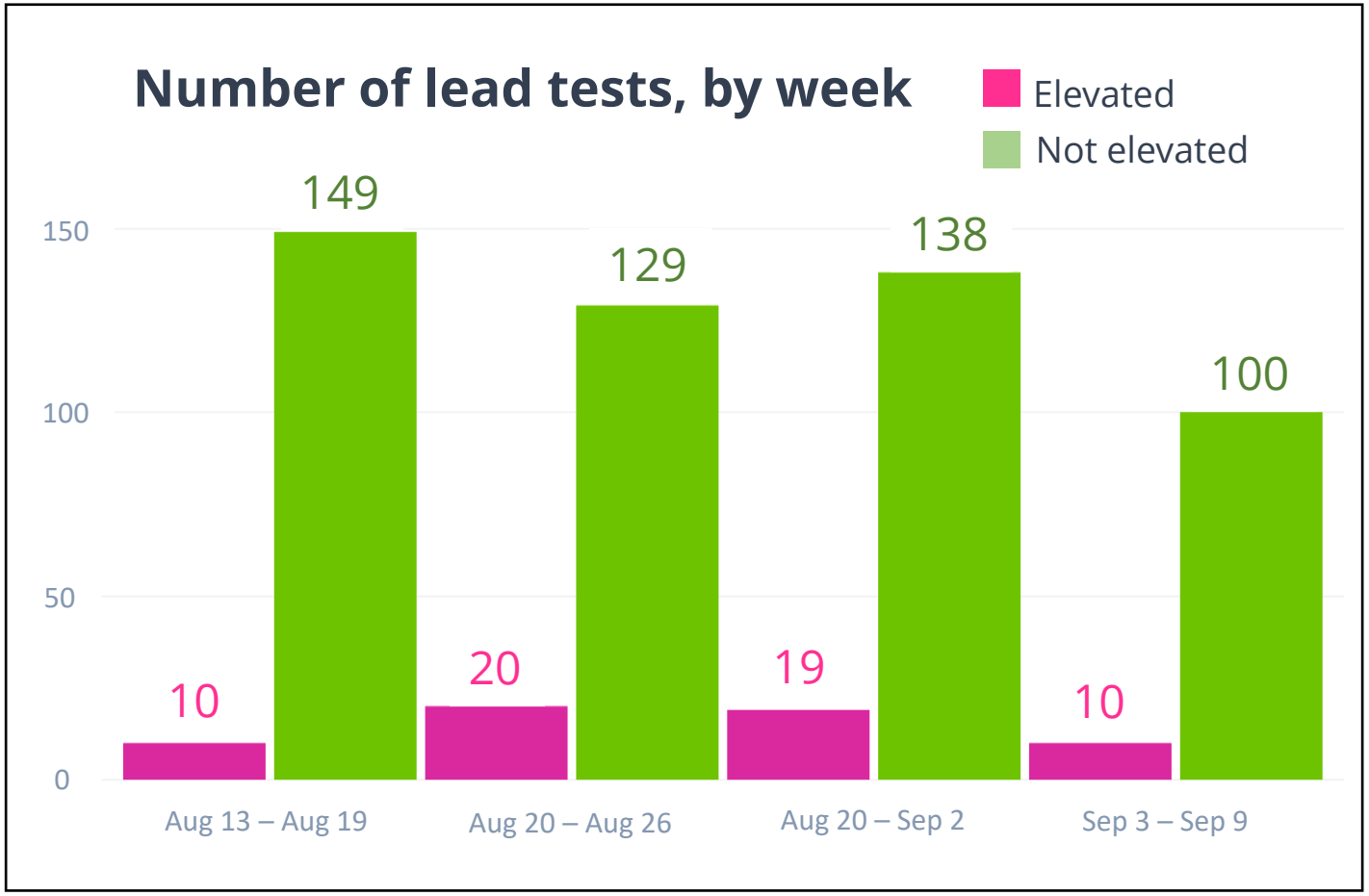
Improved workflows system-wide have been working!

	June 2021			July 2021			August 2021		
Site	Visits	Lead ordered	Lead drawn	Visits	Lead ordered	Lead drawn	Visits	Lead ordered	Lead drawn
A	22	17 (77%)	15 (68%)	7	7 (100%)	6 (86%)	11	11 (100%)	11 (100%)
B	14	14 (100%)	2 (14%)	25	24 (96%)	19 (76%)	22	21 (95%)	19 (86%)
C	6	6 (100%)	4 (67%)	5	4 (80%)	1 (20%)	3	2 (67%)	0 (0%)
D	33	31 (94%)	25 (76%)	29	26 (90%)	24 (83%)	43	42 (98%)	37 (86%)
E	19	14 (74%)	13 (68%)	23	21 (91%)	17 (74%)	24	20 (83%)	14 (58%)
F	9	9 (100%)	8 (88%)	5	3 (60%)	3 (60%)	4	3 (75%)	2 (50%)
G	18	18 (100%)	16 (89%)	16	16 (100%)	15 (94%)	11	9 (82%)	9 (82%)
H	6	6 (100%)	2 (33%)	6	6 (100%)	2 (33%)	10	10 (100%)	5 (50%)
I	6	5 (83%)	4 (67%)	0	n/a	n/a	5	5 (100%)	5 (100%)
	19	15 (79%)	9 (60%)	23	16 (70%)	9 (39%)	19	17 (89%)	15 (79%)

Lead drawn on same day of visit (overall): **49% → 72%**

% of pts with lead by 2nd birthday: **57% → 65%** *(projected)*

Trying to do more to help patients with elevated lead

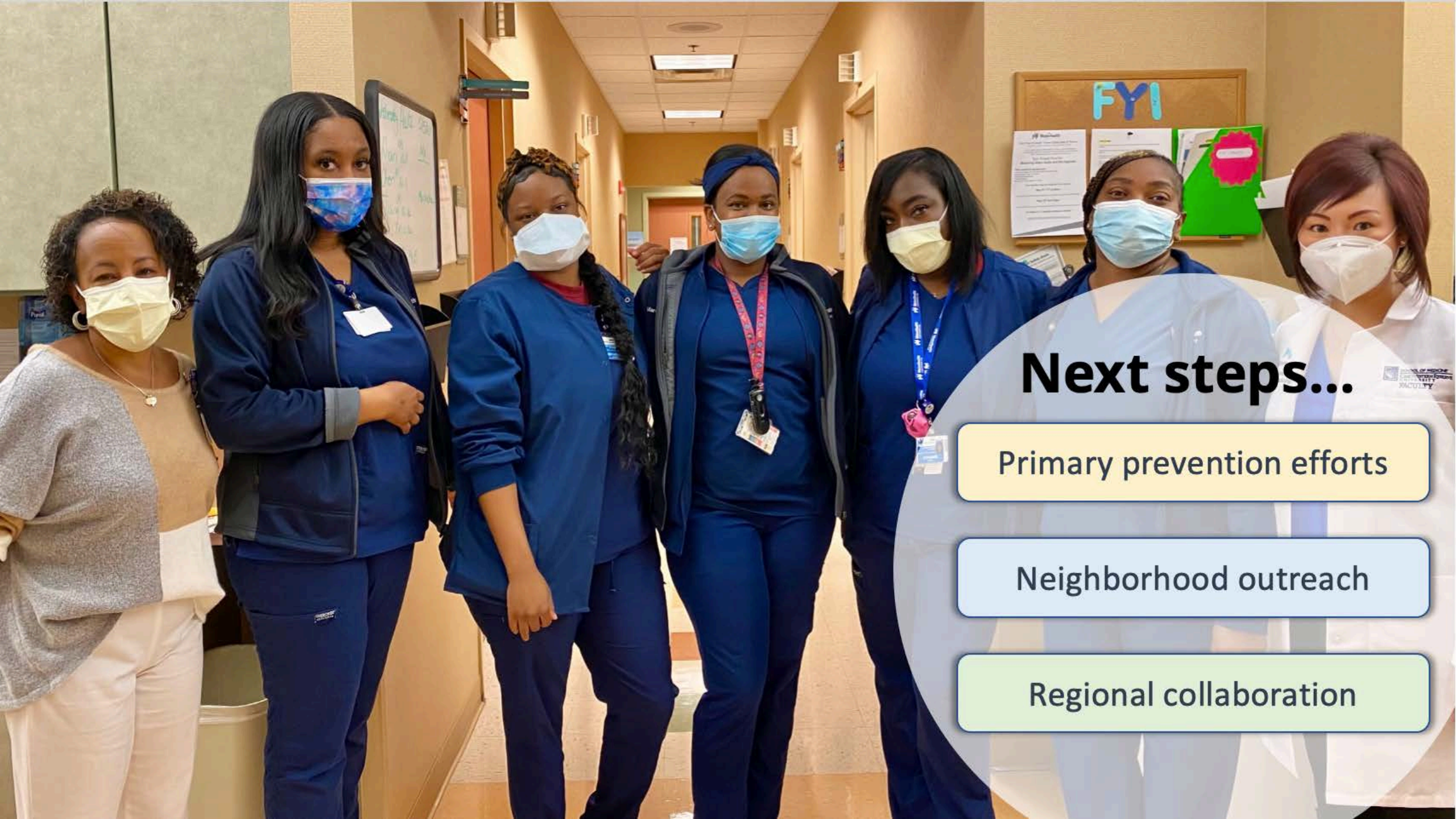


Metric to track timely follow-up

- Was elevated lead repeated w/in 6 mos?
- Currently for MHS → **58%**

Lead Clinic for patients ≥10 mcg/dL

- Neuropsychology
- Community Advocacy Program (legal)
- Monthly case reviews
- Housing resources



Next steps…

- Primary prevention efforts
- Neighborhood outreach
- Regional collaboration

Thank you!

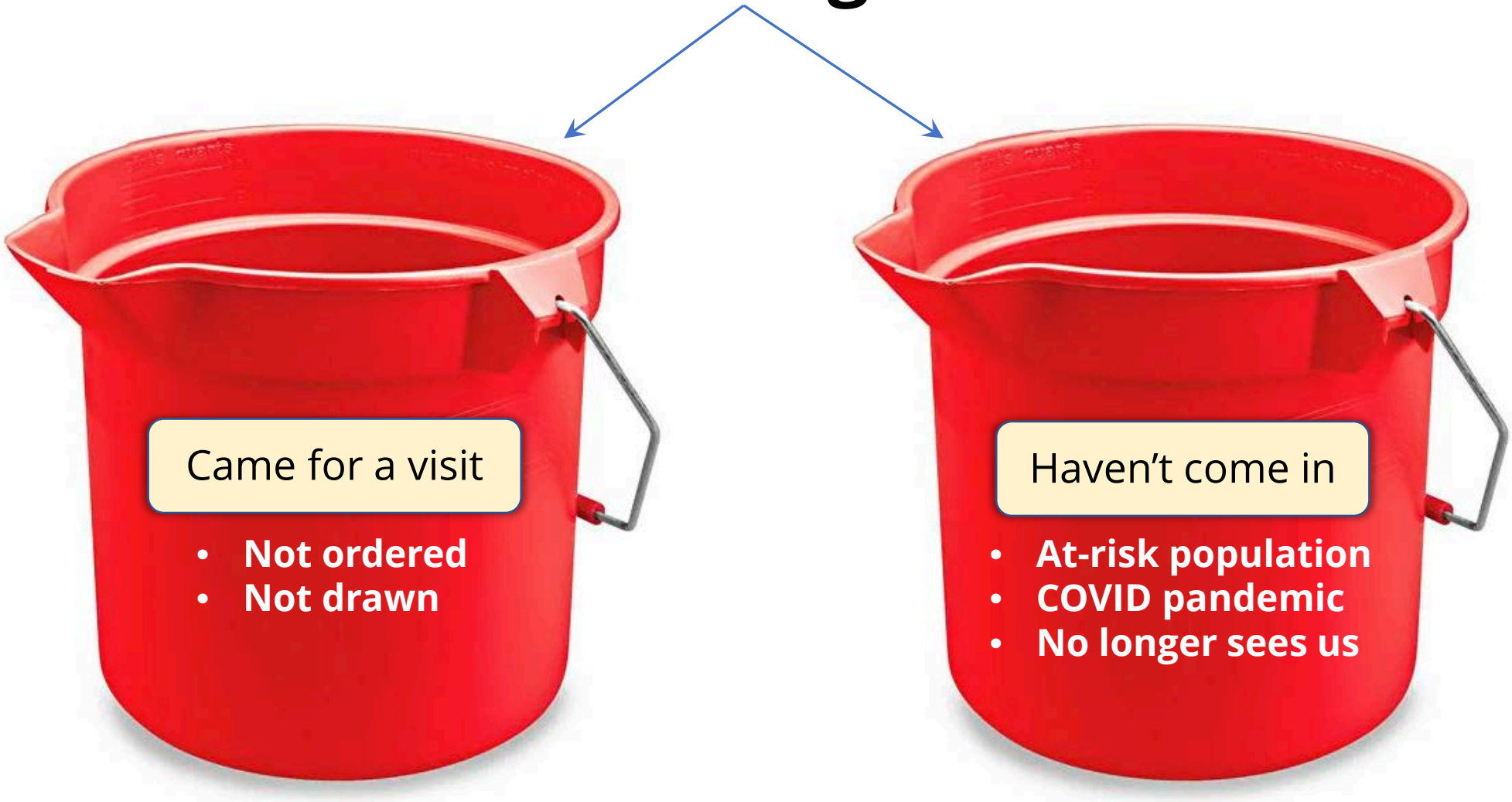
Matt Tien
mtien@metrohealth.org

Additional slides
(May be used for Q&A)

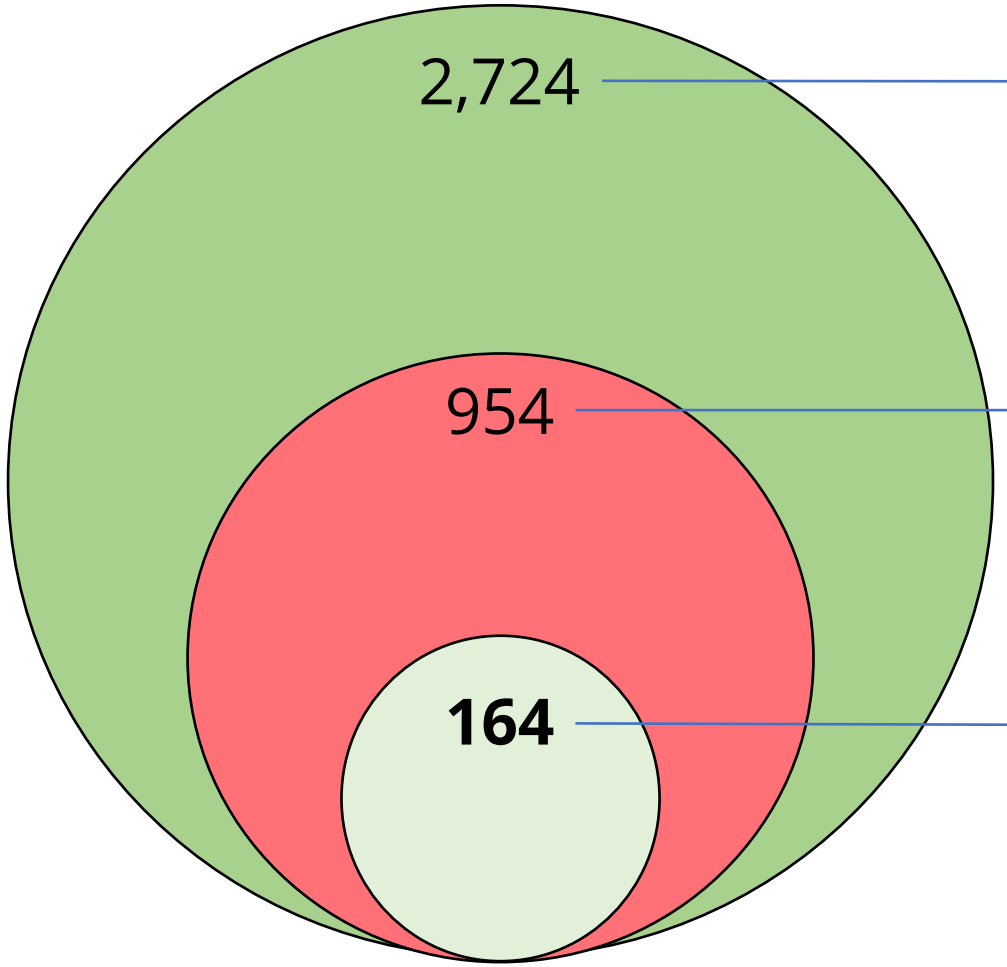
Case: 35-month-old boy

- **Feb 19, 2021** – Seen for well child visit at 28-mo-old → **lead level 18 mcg/dL**
- **March 19** – Visit to Lead Clinic - education, HMG referral
- **July 23** – Follow up visit to Lead Clinic → **lead level 80 mcg/dL**
- **Jul 26 – Aug 5** – Admission to MetroHealth for chelation
  - **Lead level 80 → 18**
  - Home inspection → lead found in windows, doors; repairs will take months
  - Discharged to stay with cousin
- **August 13** – Follow up visit to Lead Clinic → **lead level 31**
  - Patient is back at grandmother's house!
  - Referral to Providence House
- **Sep 8** – Pre-admission visit for Providence House → **lead level 67**
- **Sep 9 - 15** – Re-admission to MetroHealth for chelation again
  - **Lead level 67 → 34**
  - Discharge to Providence House

Children missing lead tests



Did some kids get lead testing elsewhere?



Our Medicaid patients turning 2 yo in 2021

Patients with no lead result in our records

We looked up every single patient on ImpactSIIS!

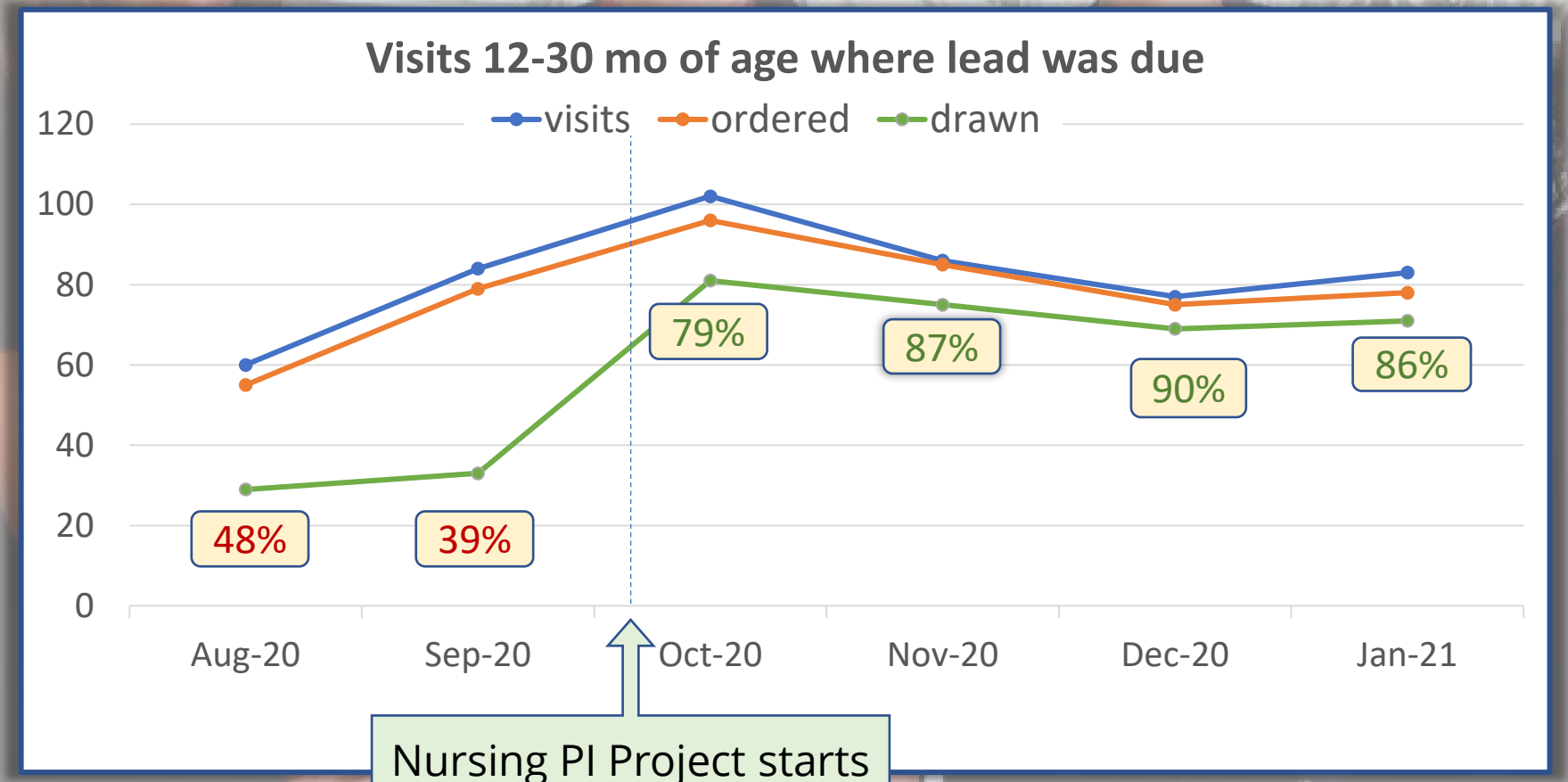
Patients found to have **external** lead results

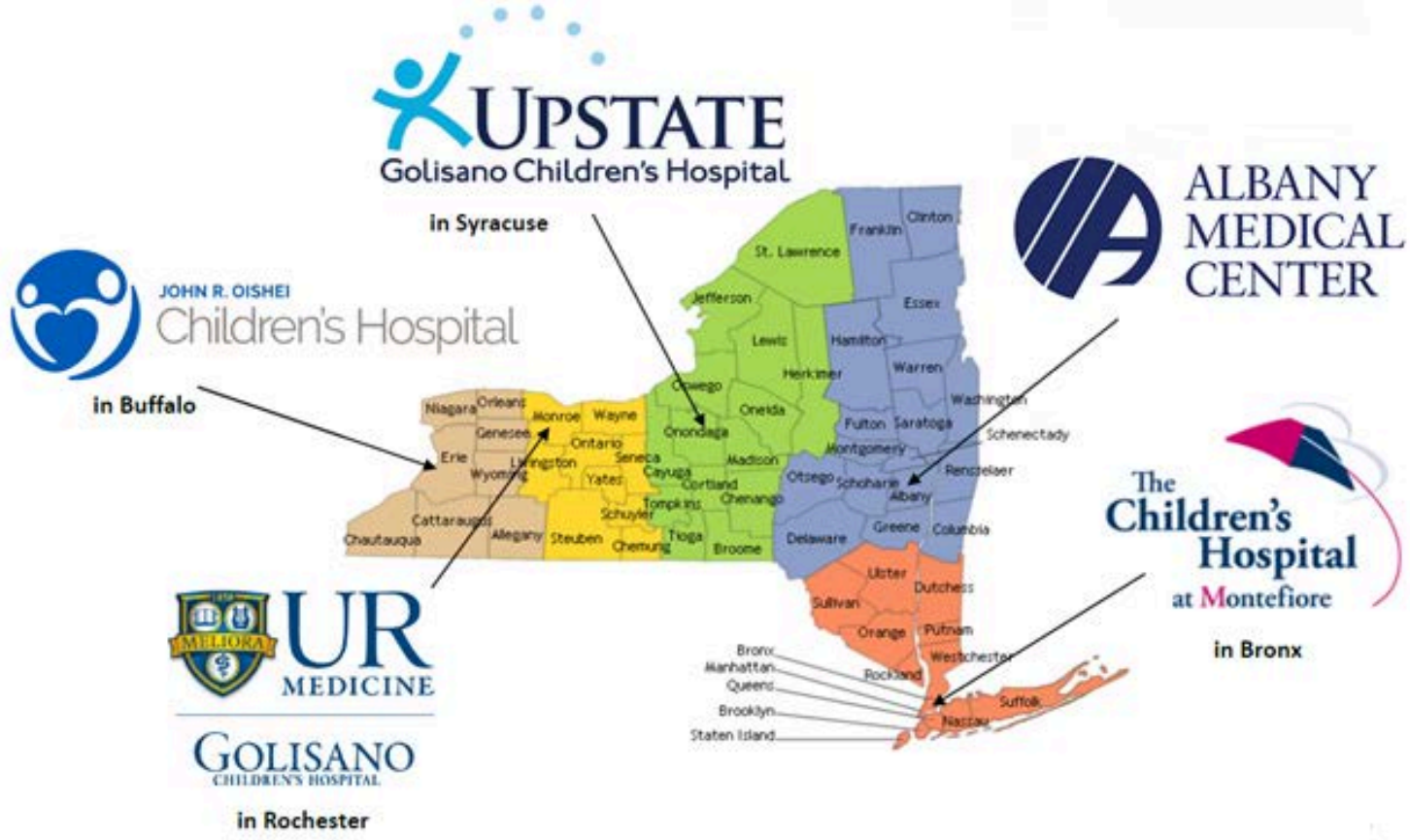
University Hospitals	43
Cleveland Clinic	32
Akron Children's	21
St. Luke's	9

Neighborhood FP	3
NEON	2
Care Alliance	2
Other/Unknown	49

There must be a better way to do this!

Drawing the blood in clinic works!





New York State has 5 regional lead poisoning resource centers

- Educate medical providers/staff
- Resource for managing patient with elevated lead levels
- Direct chelation for hospitalized children
- Collaborate with local health departments

Provider Blood Lead Testing Report Card

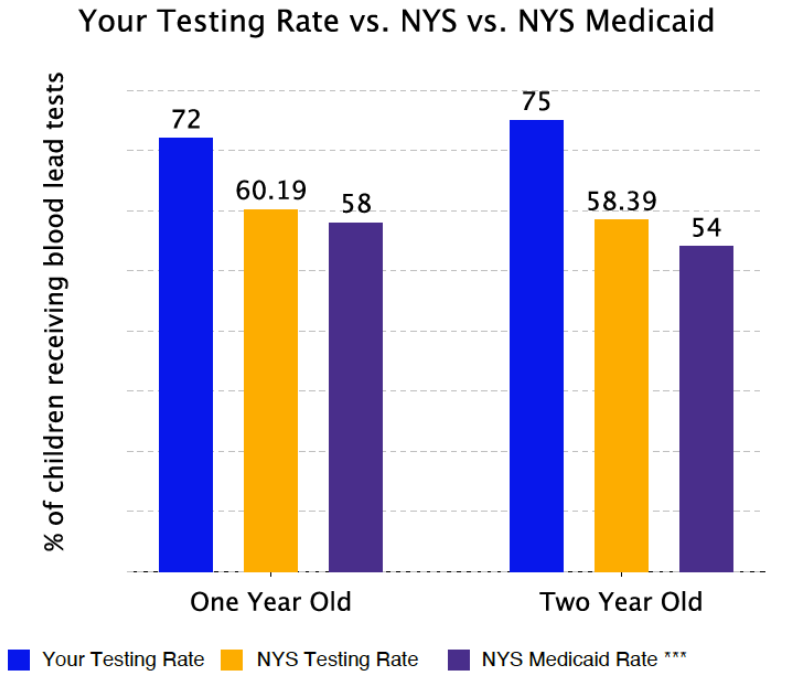
[redacted]

• New York State requires health care providers to test all children for lead with a blood lead test at age 1 year and again at age 2 years, to assess a child's risk of lead exposure at each well-child visit, and to perform lead testing if a child is found to be at risk. (10NYCRR 67-1.2)
• Medicaid requires that all children who are enrolled received a blood lead test at both 1 and 2 years of age. If no lead test has been completed, children should receive a test between 3 and 5 years of age.
• Capillary blood lead samples with a result of 5 μg/dL or greater require a confirmatory venous sample analyzed by a lab approved for toxicology blood lead comprehensive testing* within 3 months or less, depending on the initial capillary blood lead sample result.
• ALL capillary blood lead results obtained in a provider's office from a point-of-care device (i.e. LeadCareII®) must be reported to the New York State Department of Health.

Your 2020 Testing Rate:

One Year Olds: 72% (9months-<18months)

Two Year Olds: 75% (18months-<36months)



Your 2020 Timely Confirmatory Venous Testing Rate: 60%

Among the children in your practice with a capillary result of 5 μg/dL or greater

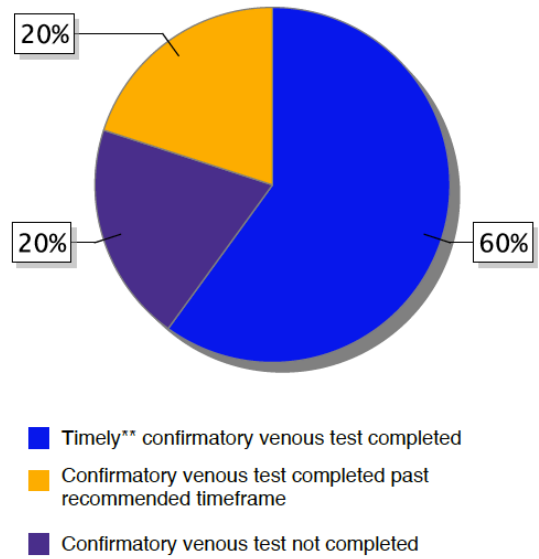
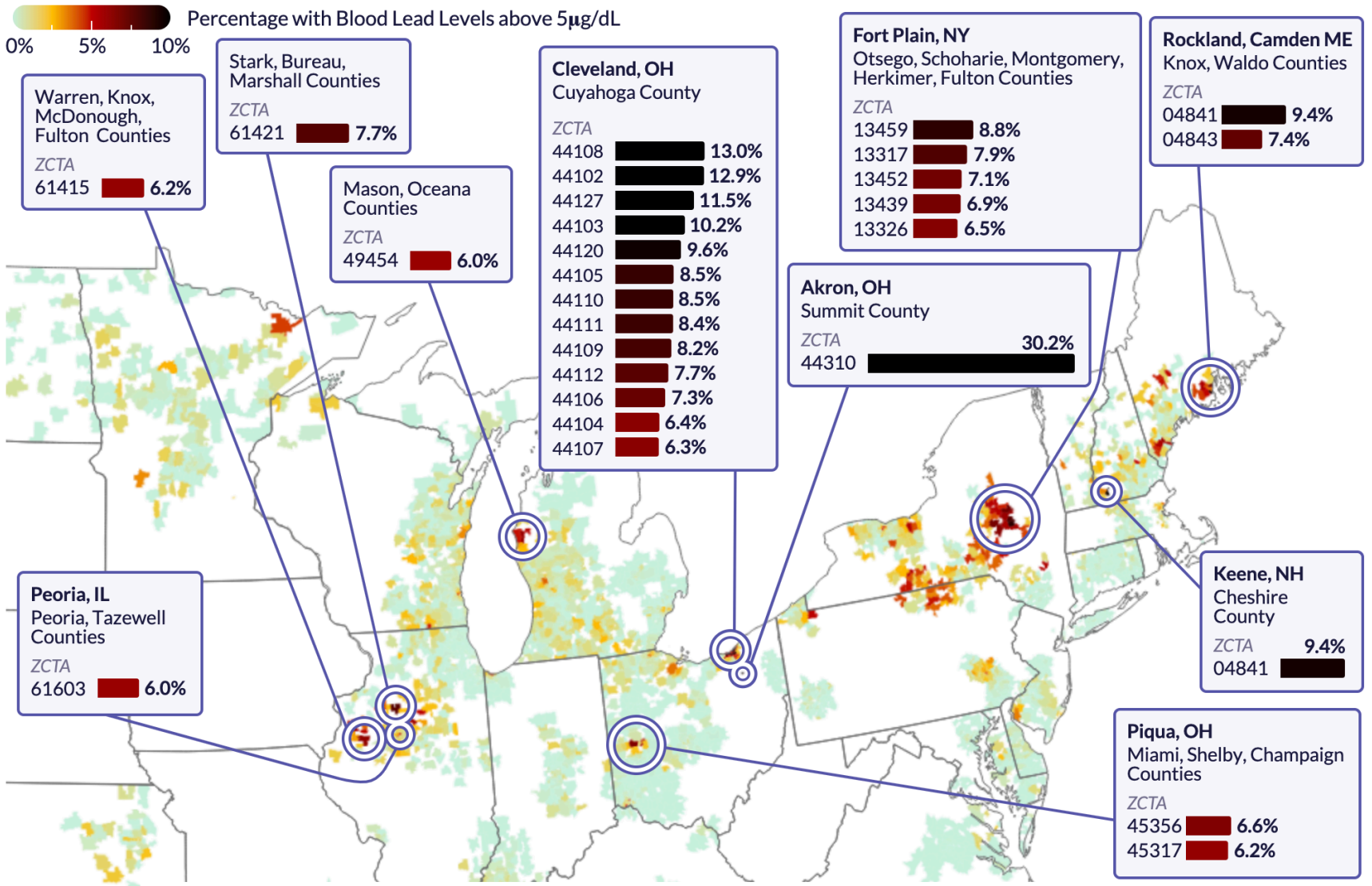


FIGURE 2

Percentage of Children with Elevated Blood Lead Levels in the Midwest and Northeast



"Percentage of Children with Elevated Blood Lead Levels in the Midwest and Northeast" 2021. Epic Health Research Network (EHRN.org)

Figure 2. U.S. ZCTAs in the Midwest and Northeast and the percentage of estimated children in the population who have blood lead levels above 5 µg/dL. Darker red correlates with a higher percentage of children with elevated lead levels. Uncolored areas did not have enough data to report.

Trinkl J, Barkley E, Winesett D, Lo J

Elevated Blood Lead Levels Still an Issue for Children in Midwest and Northeast

Epic Health Research Network
25 Aug 2021

FIGURE 3

Locations with the Highest Percentages of Elevated Blood Lead Levels

ZCTA	Urban Area *(or Counties)*	% w/ High BLL	Penetrance
44310	Akron, OH	30.2%	10.1%
44108	Cleveland, OH	13.0%	53.1%
44102	Cleveland, OH	12.9%	98.7%
44127	Cleveland, OH	11.5%	88.6%
44103	Cleveland, OH	10.2%	52.2%
03455	Keene, NH	9.7%	57.3%
44120	Cleveland, OH	9.6%	46.7%
04841	Rockland, ME	9.4%	54.1%
13459	*(Montgomery, +2, NY)*	8.8%	81.9%
44105	Cleveland, OH	8.5%	81.8%
44110	Cleveland, OH	8.5%	33.4%
44111	Cleveland, OH	8.4%	72.7%
44109	Cleveland, OH	8.2%	99.6%
13317	Fort Plain, NY	7.9%	51.8%
44112	Cleveland, OH	7.7%	35.5%
61421	*(Bureau, Marshall, Stark IL)*	7.7%	67.6%
04843	Camden, ME	7.4%	47.4%
44106	Cleveland, OH	7.3%	35.9%
13452	*(Fulton, Herkimer, +1 ,NY)*	7.1%	46.3%
13439	*(Herkimer, Otsego, NY)*	6.9%	100.0%
45356	Piqua, OH	6.6%	91.5%
13326	*(Herkimer, Otsego, NY)*	6.5%	100.0%
44104	Cleveland, OH	6.4%	61.3%
44107	Cleveland, OH	6.3%	24.9%
61415	*(Fulton, Knox, +2, IL)*	6.2%	42.6%
45317	*(Champaign, Miami, +1, OH)*	6.2%	47.3%
95570	*(Humboldt, CA)*	6.2%	79.4%
61603	Peoria, IL	6.0%	100.0%
49454	*(Mason, Oceana, MI)*	6.0%	74.1%
13339	Fort Plain, NY	6.0%	32.9%

ZCTA	Urban Area (*or Counties*)	% w/ High BLL	Penetrance
14608	Rochester, NY	5.9%	100.0%
61462	Monmouth, IL	5.9%	100.0%
04005	Portland, ME	5.9%	65.5%
61606	Peoria, IL	5.8%	56.8%
61570	*(Marshall, Peoria, +1, IL)*	5.8%	75.5%
45216	Cincinnati, OH, KY, IN	5.8%	41.0%
14904	Elmira, NY	5.7%	96.5%
13320	*(Herkimer, +3, NY)*	5.6%	99.1%
13431	*(Herkimer, Oneida, NY)*	5.6%	32.1%
44135	Cleveland, OH	5.6%	74.3%
44115	Cleveland, OH	5.5%	100.0%
12043	Cobleskill, NY	5.5%	100.0%
95536	*(Humboldt, CA)*	5.5%	35.9%
04002	*(York, ME)*	5.5%	58.1%
04862	*(Knox, Lincoln, Waldo, ME)*	5.5%	36.1%
12401	Kingston, NY	5.4%	42.0%
14489	Newark, NY	5.3%	100.0%
14879	*(Schuyler, Steuben, NY)*	5.3%	94.9%
45204	Cincinnati, OH, KY, IN	5.3%	79.0%
14613	Rochester, NY	5.3%	100.0%
13365	Little Falls, NY	5.2%	89.6%
49410	*(Lake, Mason, MI)*	5.2%	54.3%
04861	Rockland, ME	5.2%	74.1%
13416	*(Herkimer, NY)*	5.1%	73.1%
45205	Cincinnati, OH, KY, IN	5.1%	69.3%
61410	Abingdon, IL	5.1%	100.0%
61377	*(LaSalle, Livingston, +1, IL)*	5.0%	84.5%
13350	Ilion--Herkimer, NY	5.0%	100.0%
19602	Reading, PA	5.0%	100.0%
16407	Corry, PA	5.0%	28.8%

"Locations with the Highest Percentages of Elevated Blood Lead Levels," 2021. Epic Health Research Network (EHRN.org)

Figure 3. U.S. ZCTAs where the percentage of estimated children in the population that have blood lead levels (BLL) above 5 µg/dL is 5% or more and penetrance is 10% or more.

Trinkl J, Barkley E, Winesett D, Lo J

Elevated Blood Lead Levels Still an Issue for Children in Midwest and Northeast

Epic Health Research Network
25 Aug 2021

Timothy Johnson,

Policy Associate,

Ohio Poverty Law Center and representative of the Ohio Lead Free Kids Coalition

Investing In A Lead-Free Ohio

By Tim Johnson

OPLC
Ohio Poverty Law Center

OHIO LEAD FREE KIDS
COALITION

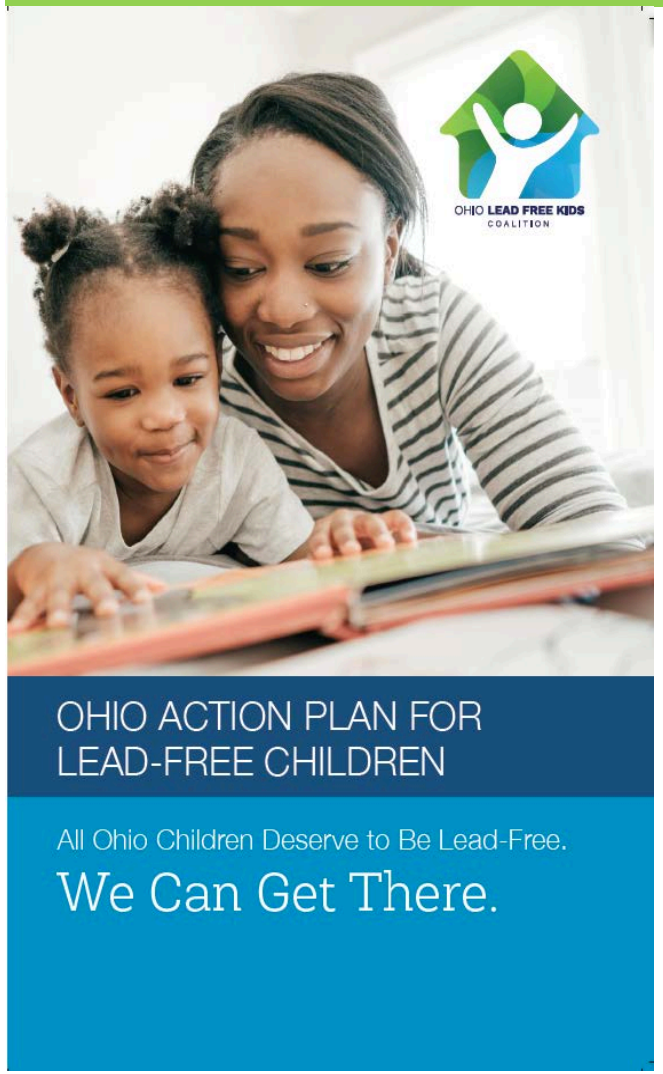
OLFKC Membership

Advocates for Basic Legal Equality, Inc. (ABLE)*
Alliance for the Great Lakes
Ashland/Richland County Lead Prevention Collaborative
Canton City Public Health
Center for Community Solutions
Children's Defense Fund, Ohio*
Cleveland Lead Safe Network
Coalition on Homelessness and Housing in Ohio (COHHIO)*
Concerned Citizens Organized Against Lead (CCOAL)*
Columbus Public Health*
Corporation for Ohio Appalachian Development (COAD)
Cuyahoga County Board of Health
Enterprise Community Partners
Environmental Health Watch
Freshwater Future*
Greater Cincinnati Water Works
Groundwork Ohio*
Ohio Chapter, American Academy of Pediatrics
Ohio Children's Alliance*
Ohio Environmental Council*
Ohio Federation for Health Equity & Justice
Ohio Healthy Homes Network (OHHN)**
Ohio Nurses Association
Ohio Poverty Law Center**
Ohio Public Health Association
National Council of Negro Women, Inc. – Cuyahoga County Section
Northeast Ohio Black Health Coalition
Northern Ohioans for Budget & Legislation Equality (NOBLE)*
Policy Matters Ohio*
Public Children Services Association of Ohio
Schubert Center for Child Studies, Case Western Reserve University**
The Khnemu Foundation
The MetroHealth System
Toledo Lead Poisoning Prevention Coalition
United Way of Greater Cleveland
Voices for Ohio's Children
West Ohio Community Action Partnership*

OPLC Ohio Poverty Law Center

OHIO LEAD FREE KIDS COALITION

9-Point Lead Action Plan Released February 2020



1. Help Homeowners & Landlords Eliminate Lead Hazards
2. Make Rental Housing Lead-Safe
3. Protect Children from Lead During Renovation & Demolition
4. Disclose Lead Hazards & Engage Ohioans
5. Empower Schools & Early Learning Programs to Keep Children Lead Safe
6. Remove Lead from Drinking Water
7. Build a Strong Lead Workforce
8. Research New Ways to Protect Children from Lead
9. Improve Supports for Children Exposed to Lead

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OHIO LEAD FREE KIDS
COALITION

Current State Investment In Lead

- $6.5 Million each FY investment in the Lead Abatement Line
- $5 Million each FY for lead abatement tax credit
- $5 Million each FY to run the SCHIP Lead Abatement Program
- $1 Million each FY for Lead Safe Home Fund
- $22.3 Million each FY for Early Intervention Services
- $10 Million each FY in H2Ohio for Lead Service Line Replacement

OPLC
Ohio Poverty Law Center

OHIO LEAD FREE KIDS
COALITION

The Problems We Face

- Despite new and continued investments by the state, we still have a long way to go before we are lead free.
- Ohio has the second highest percentage of kids who have elevated bloods lead levels in the country.
- Ohio has the second highest number of lead services lines in the country.
- More than 420,000 kids under age 6 are estimated to be living in a home with lead hazards.

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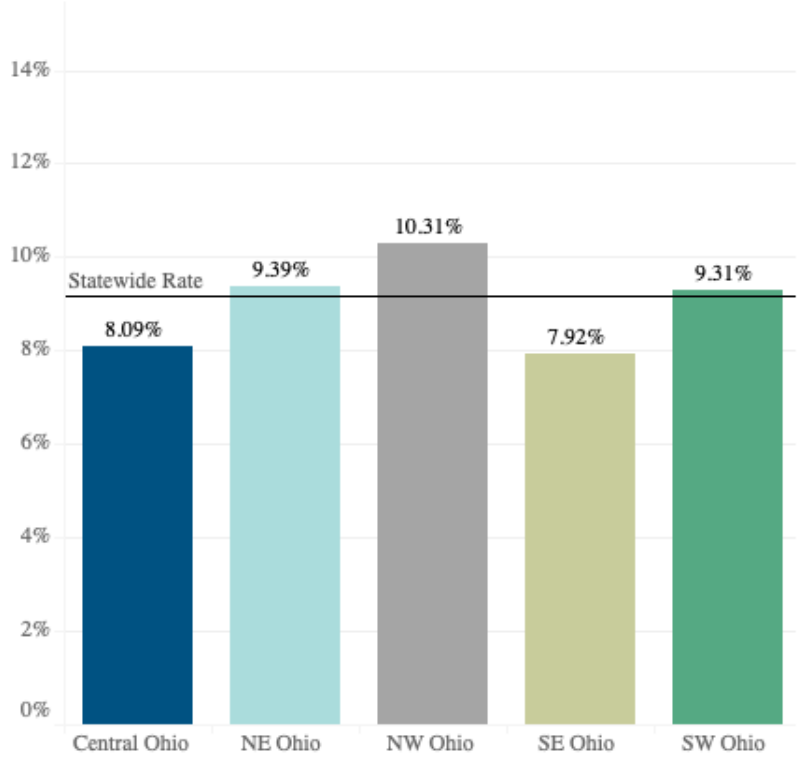
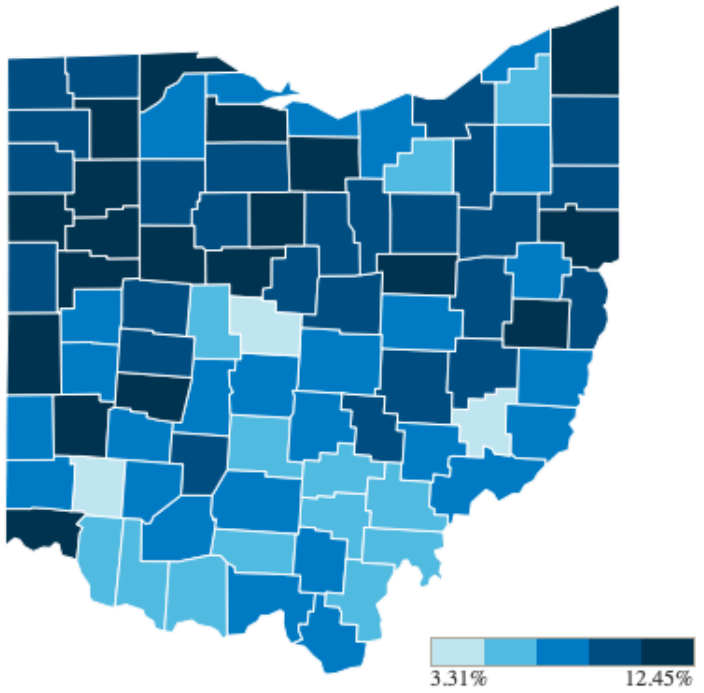
OHIO LEAD FREE KIDS
COALITION

Prevalence of Risk of Lead Paint Hazard by Region



Prevalence of Risk of Lead Paint Hazard



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Ohio Poverty Law Center

ARPA Funds & Lead Poisoning Prevention

- Use ARPA Dollars to fund the Lead Poisoning Prevention Fund.
- Increase funding for lead abatement tax credit and expand who can use the tax credit.
- Increase SCHIP funding to help ODH get caught up on homes with lead hazard control orders
- Provide funding for full lead service line replacement and lead service line inventory.

Workforce Needs

- ARPA dollars represent a once in a lifetime opportunity to make significant investments in lead.
- However, ridding Ohio homes of lead poisoning will not be possible without people to do the work.
- Department of Development should assist in the development and growth of the lead abatement and lead safety workforces by working with community action agencies, non-profits, contractors, vocational schools & community colleges.
- Ohio should also make funding available for the Department of Health to help subsidize the training and certification costs associated with RRP

The Work Is Not Over

- Ohio stepped up in the most recent budget and placed an emphasis on lead poisoning prevention, but even with the most recent investments by the state, it is nowhere near enough.
- ARPA dollars represent a real opportunity to make some headway with Ohio's lead hazards.
- Lead Poisoning Prevention represents a costs savings opportunity for Ohio; for every dollar spent there is $17-dollar return.
- The problem is not going to be fixed overnight but with continued investment we can create a lead-free Ohio.

Questions & Answers

Moderated by our caucus co-vice chair, Rep. Susan Manchester

For legislators and legislative staff, please feel free to unmute yourselves to ask questions or share feedback.

For all other participants, please use the chat feature.

Thank you for joining today's webinar!

For more information on upcoming Ohio Legislative Children's Caucus webinars and meetings, please contact Alison Paxson at apaxson@childrensdefense.org