



# **Developmental Screening Learning Community**

November 14, 2018

## Developmental Screening Learning Community Call

November 14, 2018

9:00-10:00 a.m.

### Meeting Information:

Zoom Meeting Room: <https://zoom.us/j/3933567720>

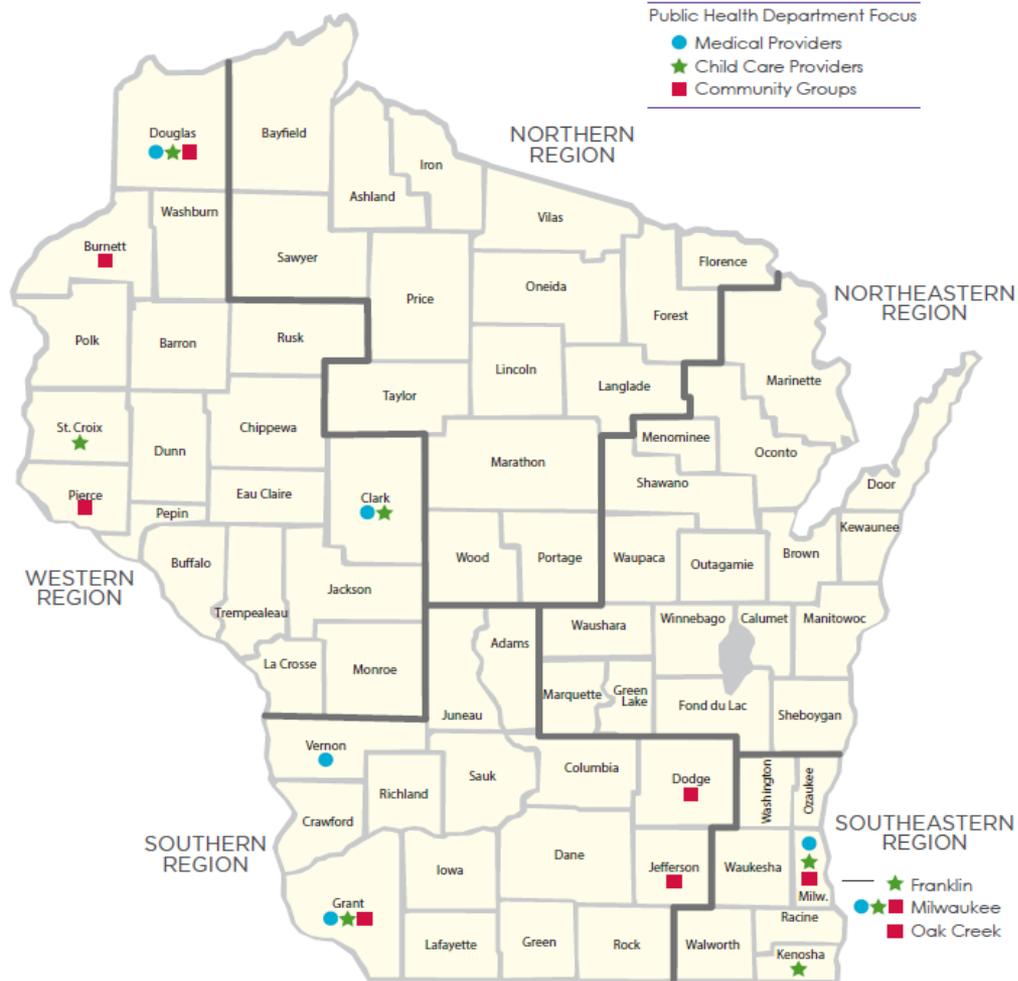
Conference Call-in #: 1-408-638-0968

Meeting ID #: 393-356-7720



+	<b>Welcome &amp; Introduction</b>	9:00-9:05 a.m.
	<b>Lead Presentation</b> Marjorie Coons, Reghan O. Walsh & Jeffrey Raiche-Gill Wisconsin Childhood Lead Poisoning Prevention Program	9:05-9:30 a.m.
	<b>Developmental Screening Quality Improvement Project</b> <ul style="list-style-type: none"><li>• Driver Diagram</li><li>• Team Highlights: Grant County</li></ul>	9:30-9:55 a.m.
	<b>Wrap-up &amp; Next Steps</b> <ul style="list-style-type: none"><li>• Online Platforms</li><li>• REDCap Reminders</li></ul> <p>2019 Learning Community Calls Schedule:</p> <ul style="list-style-type: none"><li>• February 20, 2019</li><li>• In-person MCH Summit: April 16 &amp; 17 (Eau Claire)</li><li>• June 19, 2019</li><li>• August 21, 2019</li><li>• December 4, 2019</li></ul>	9:55-10:00 a.m.

## 2018 MCH Objective - Developmental Screening



# PROTECT CHILDREN FROM LEAD EXPOSURE AND PRESERVE THEIR POTENTIAL

Kristi Tennie and Reghan Walsh, Lead Poisoning Prevention, Bureau of Environmental and Occupational Health, Division of Public Health



# THE U.S. BANNED LEAD IN:

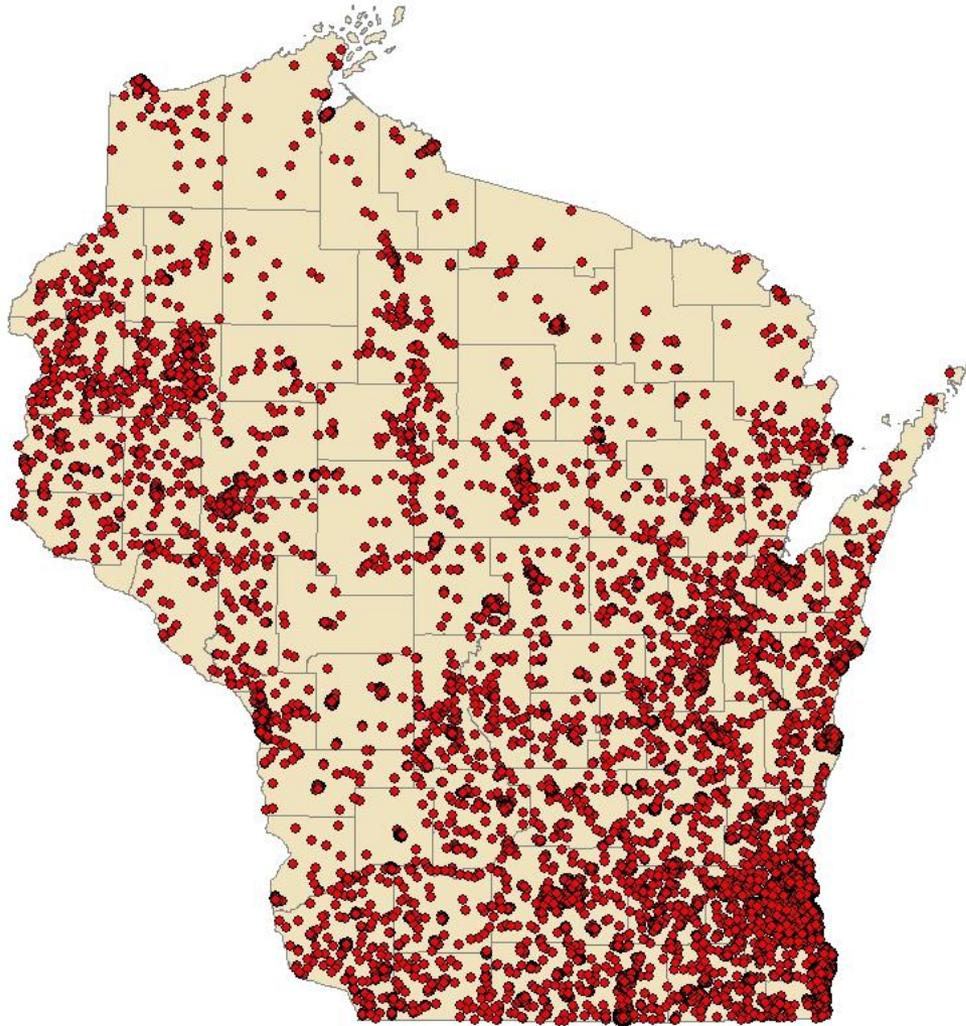
Paint, 1978

Gas, 1984

Pipes, 1986



# LEAD POISONING IS A STATEWIDE PROBLEM

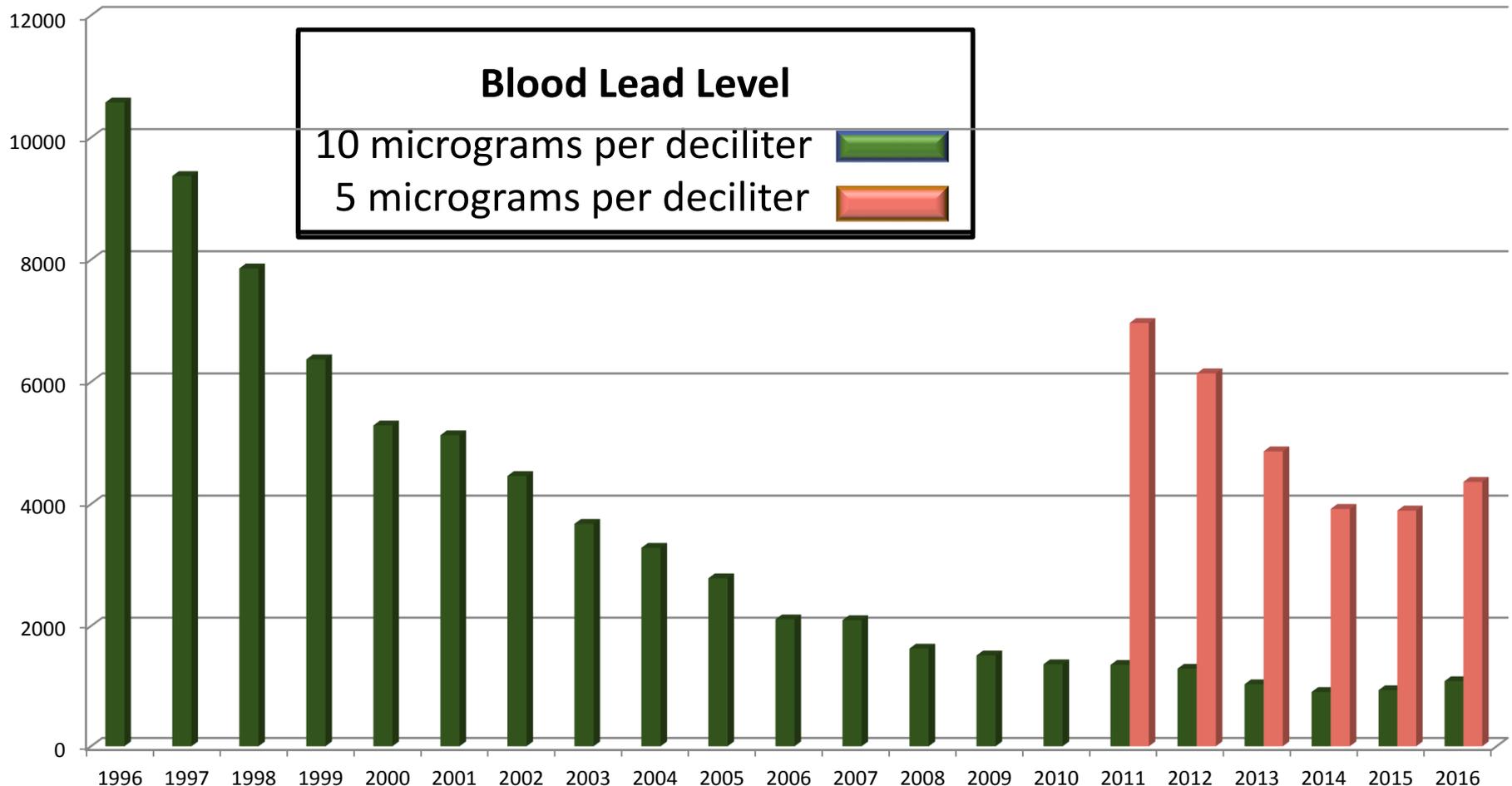


Each red dot represents an address associated with a lead-poisoned child.

Since 1996, over 260,000 children under age six had blood lead levels of five micrograms per deciliter or higher.

# WISCONSIN LEAD POISONING TREND: 1996-2016

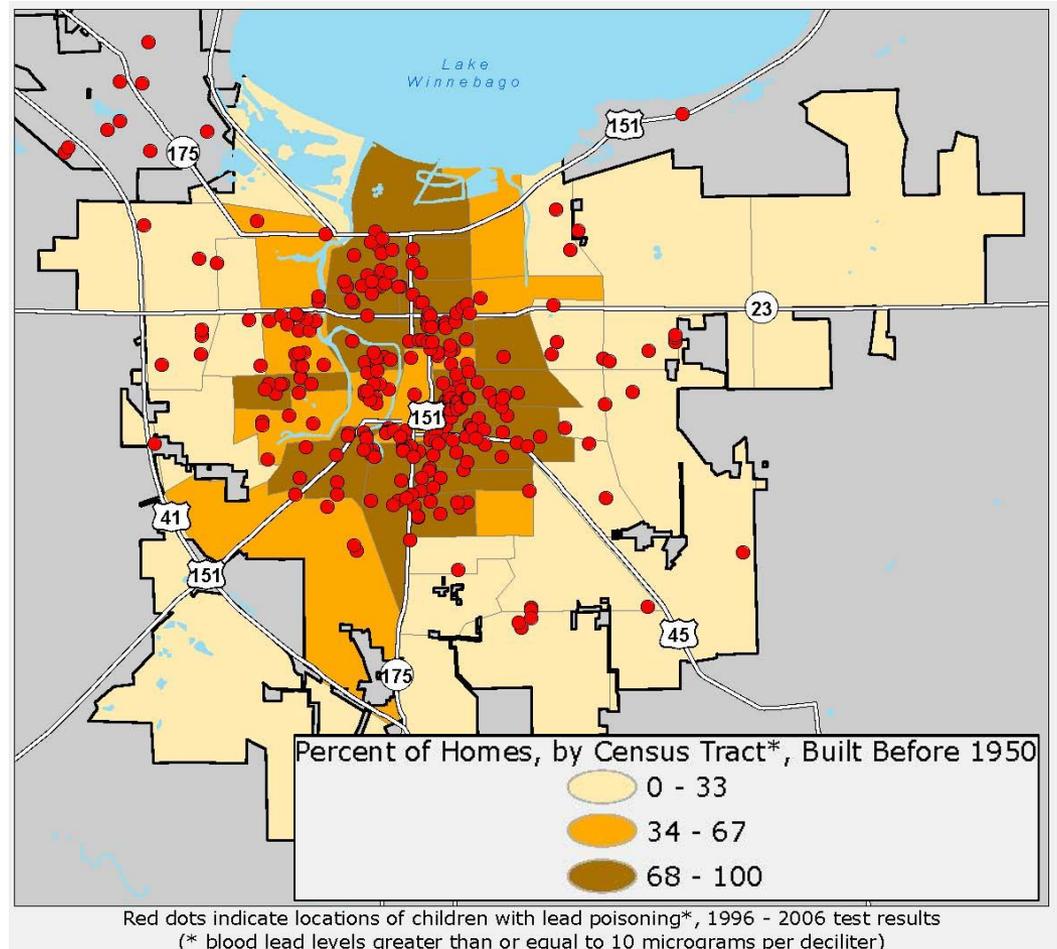
## Number of Children Under Age 6 Found to be Lead Poisoned



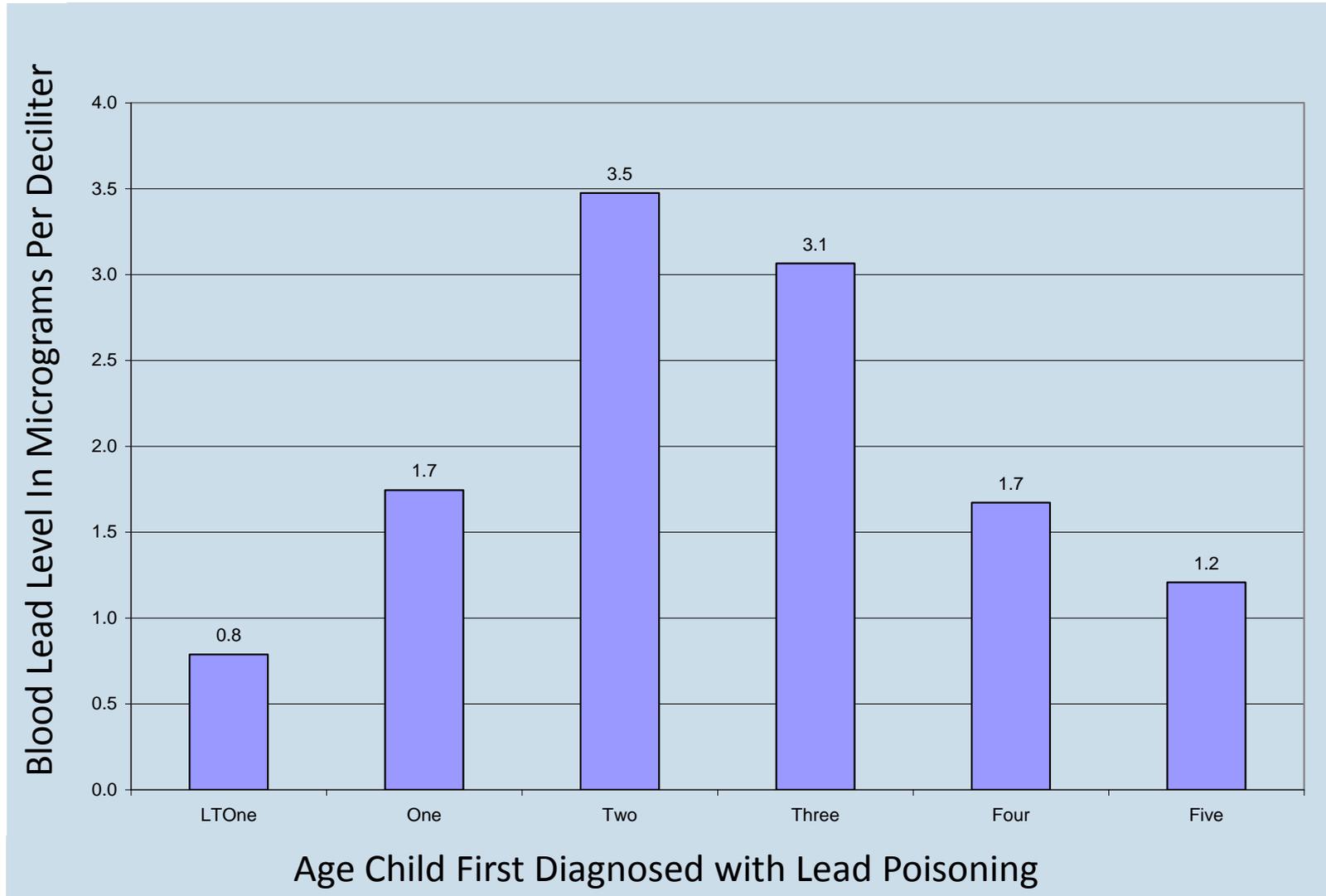
# AGE OF HOUSING AS A RISK FACTOR

## City of Fond du Lac

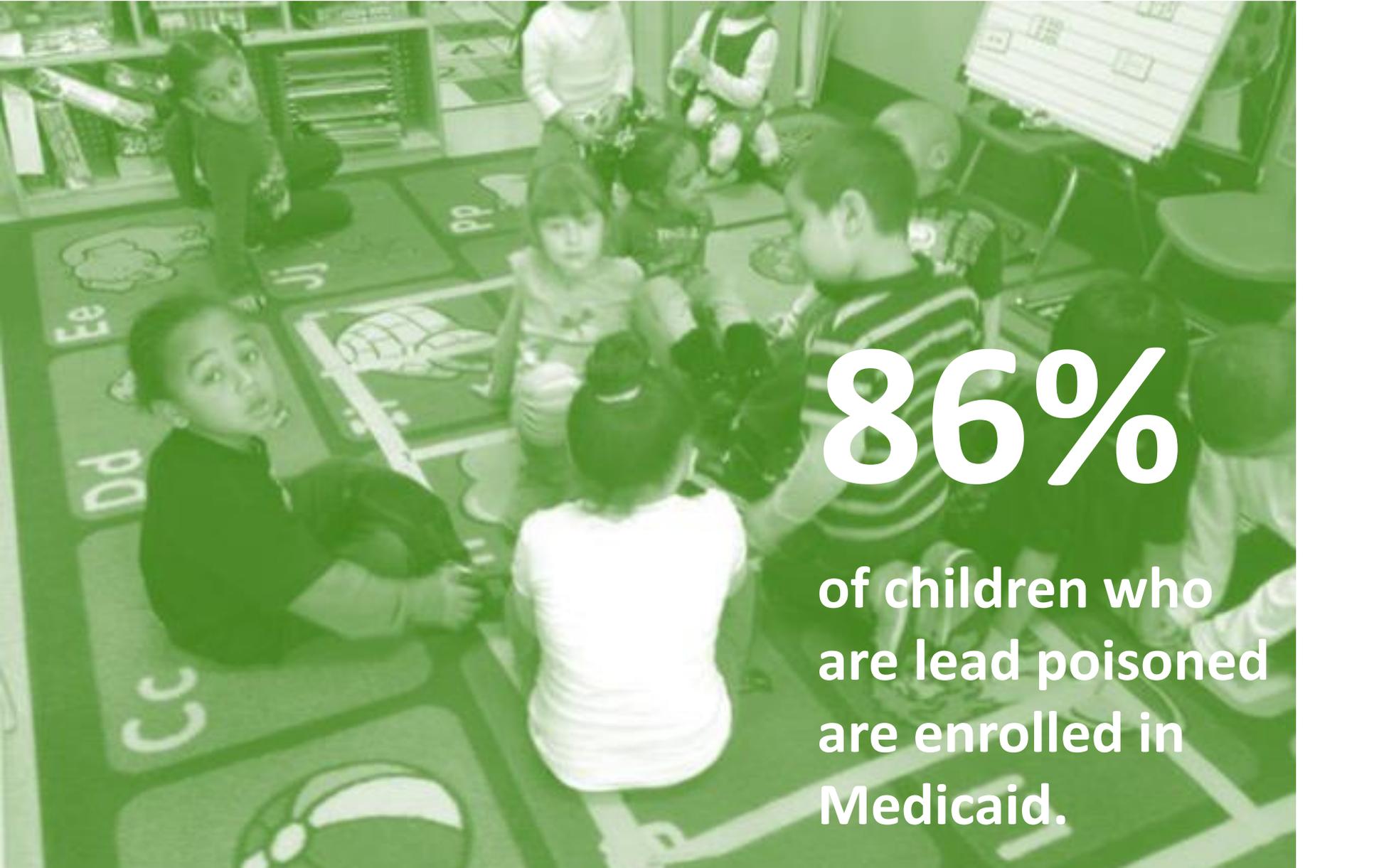
- Darkest brown shows census tracts with highest percentage of pre-1950 housing
- Red dots show locations of lead-poisoned children



# AGE OF CHILD AS A RISK FACTOR



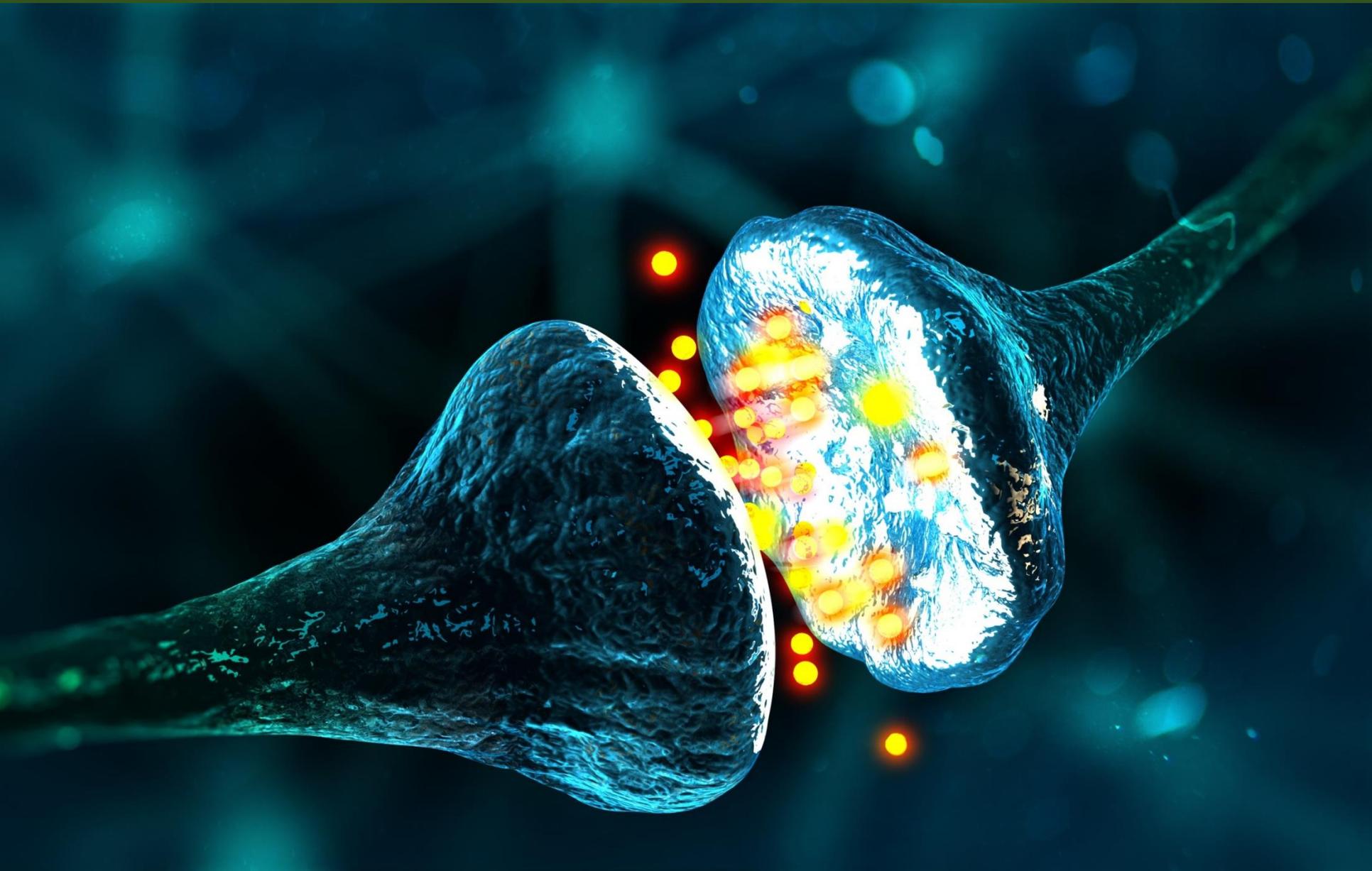
# FAMILY INCOME AS A RISK FACTOR



**86%**

of children who  
are lead poisoned  
are enrolled in  
Medicaid.

# LEAD AFFECTS EARLY BRAIN DEVELOPMENT



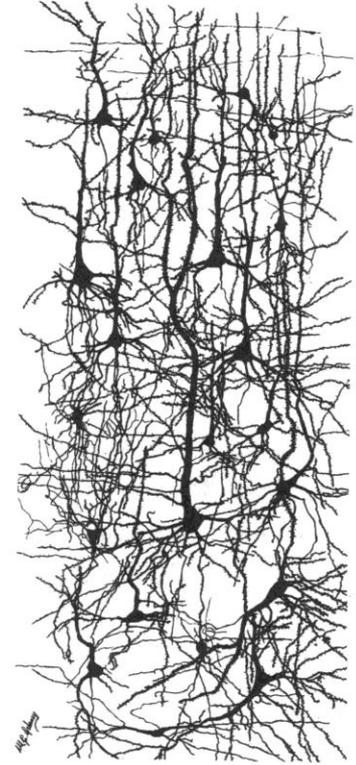
# GROWTH AND PROCESS MATURATION OF NEURONS



Newborn



3-month-old

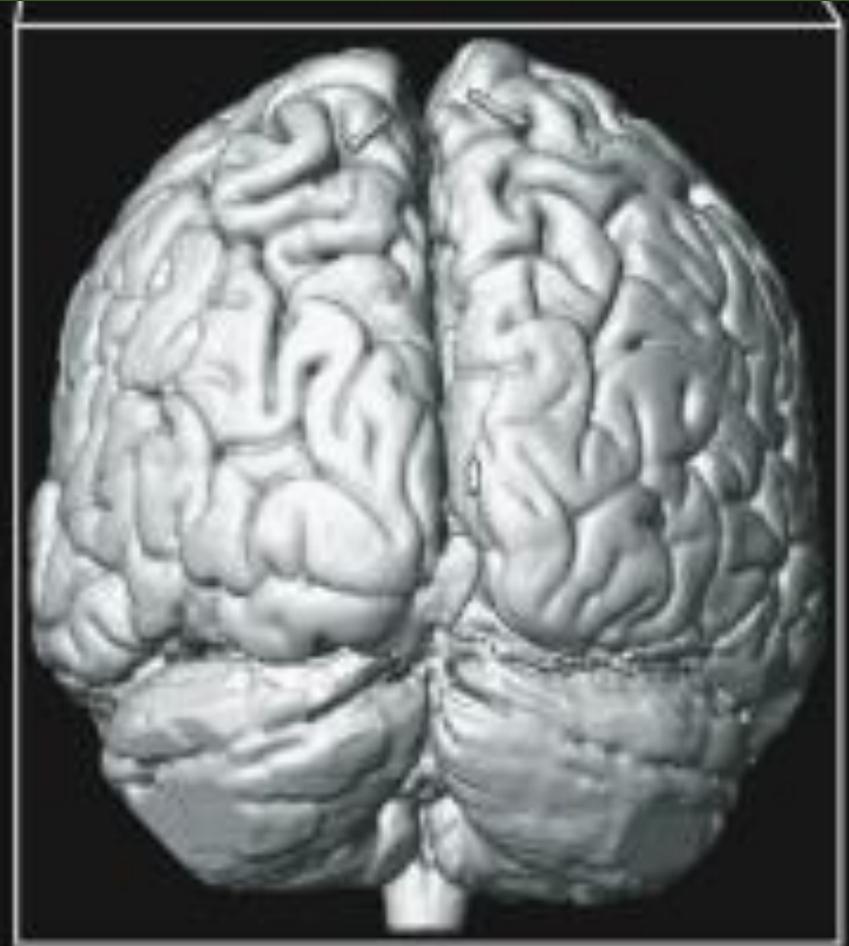


2-year-old

# Comparing Brain Volume in Adults by Childhood Lead Exposure



Lead-exposed



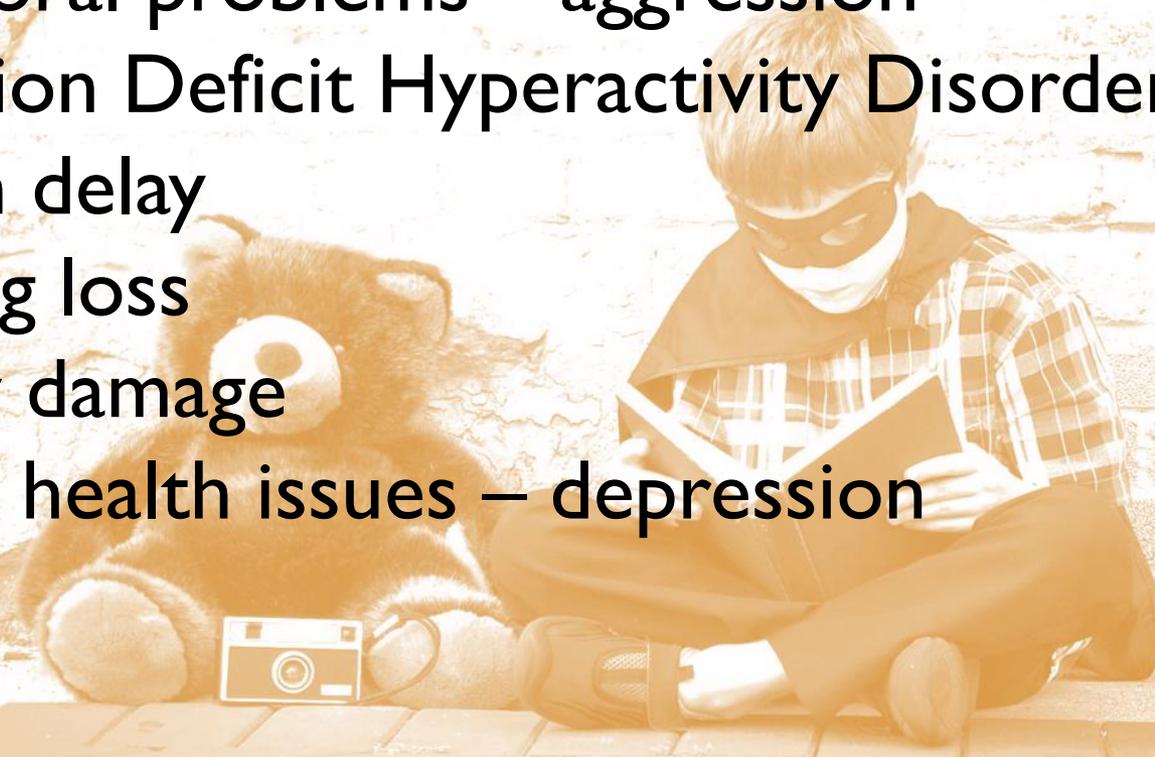
Not Lead-exposed

Source: **Decreased Brain Volume in Adults with Childhood Lead Exposure.** Kim M Cecil, Christopher J Brubaker, Caleb M Adler, Kim N Dietrich, Mekibib Altaye, John C Egelhoff, Stephanie Wessel, Ilayaraja Elangovan, Richard Hornung, Kelly Jarvis, and Bruce P Lanphear

# AFFECTS OF LEAD ON CHILDREN

Can result in:

- Lowered IQ
- Behavioral problems – aggression
- Attention Deficit Hyperactivity Disorder
- Speech delay
- Hearing loss
- Kidney damage
- Mental health issues – depression



# EDUCATIONAL OUTCOMES OF LEAD POISONING

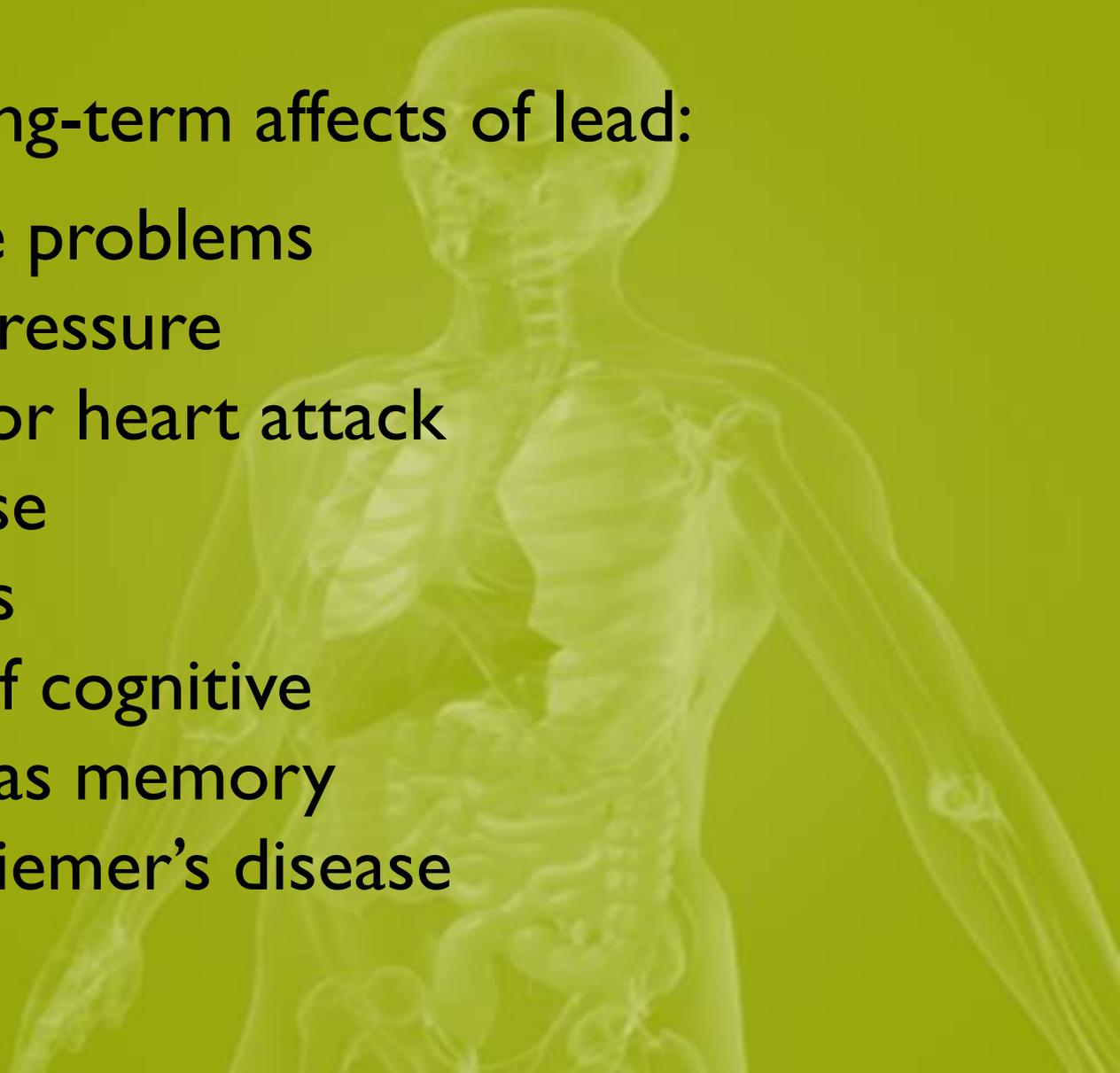
In adolescence and young adulthood:

- Learning disabilities
- Poor school performance
- Bad decisions
- Juvenile delinquency
- Teen pregnancy
- School drop-out
- Violent crime
- Imprisonment

# AFFECTS OF LEAD ON ADULTS

In adulthood, long-term affects of lead:

- Reproductive problems
- High blood pressure
- Early stroke or heart attack
- Kidney disease
- Osteoporosis
- Early onset of cognitive deficits such as memory loss and Alzhiemer's disease



# THE LEGACY OF LEAD IN OUR OLD HOUSES



# PRIMARY PREVENTION STRATEGIES

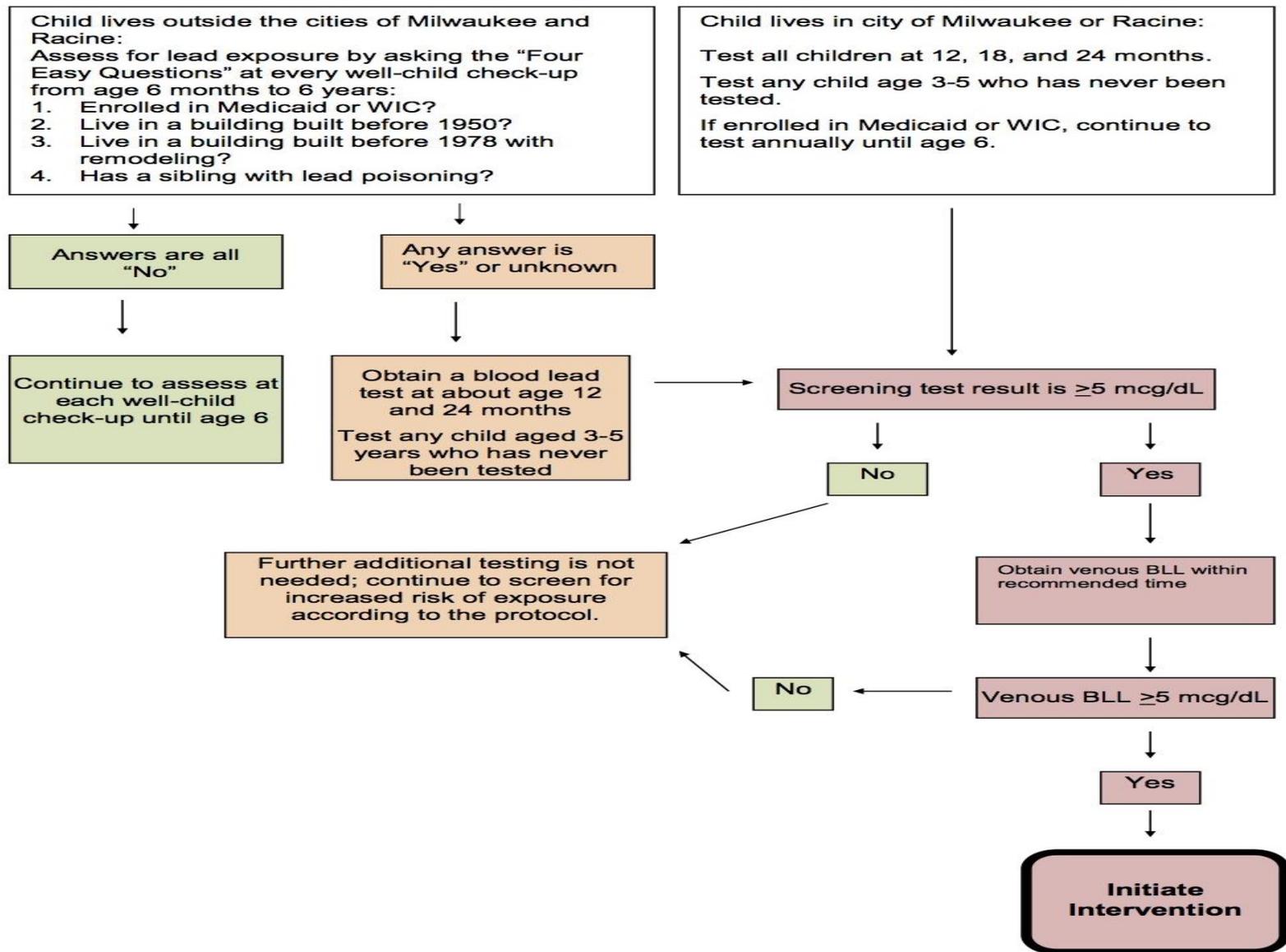
- **Funding** to fix lead hazards in housing before children are lead poisoned
- **Policies** that promote lead-safe housing and child care facilities and regulate renovation work practices
- **Education** so families and physicians can protect children from lead



# TOOLS THAT ARE PART OF THE SOLUTION

- Strong Blood Lead Testing policies and practices
- Wisconsin Blood Lead Registry
- Provider Report Cards with list of untested children
- Emerging Sources handout

# WISCONSIN BLOOD LEAD SCREENING RECOMMENDATIONS



# WISCONSIN BLOOD LEAD REGISTRY



Staging Region 7.5.0

## System Monitoring

manage exceptions  
check report status  
show users

## Data Exchange

exchange data  
check status  
manage data exchange  
vital data exchange  
job monitor  
view tdg lite log  
view tdg log  
submit hmo data  
submit hmo query  
copy exchange data  
copy hmo data  
copy vital data  
organizational extract

## Maintenance

manage schools  
manage physicians  
manage sites  
manage clinicians

## Inventory

manage inventory  
manage orders  
manage transfers  
shipping documents  
transaction summary  
vaccine usage  
manual orders

[home](#) [manage access/account](#) [forms](#) [related links](#) [logout](#) [help desk](#) [training](#)

organization **WIR Physicians** • user **Jeff Havlena** • role **IR Developer**

### Client Information

VFC Eligible: **No**

Client Name (First - MI - Last)  DOB  Gender  Mother's Maiden  Tracking Schedule  Chart #   
 MIKE TESTER 01/01/2006 U SMITH ACIP  
 Address  VM  
 Comments

### History

[Add Immunization](#)

[Edit Client](#)

[Reports](#)

[Print](#)

[Print Confidential](#)

[Lead](#)

Vaccine Group	Date Administered	Series	Trade Name	Dose	Owned?	Reaction	Hist?	Edit
HepB	<a href="#">01/01/2006</a>	1 of 3	Engerix-B Peds ©	Full	<a href="#">No</a>			

**Current Age: 2 years, 9 months, 20 days**

### Vaccines Recommended by Selected Tracking Schedule

[Add Selected](#)

Select	Vaccine Group	Earliest Date	Recommended Date	Overdue Date	Latest Date
<input checked="" type="checkbox"/>	<a href="#">DTP/aP</a>	02/12/2006	03/01/2006	<b>04/01/2006</b>	12/31/2012
<input checked="" type="checkbox"/>	<a href="#">HepB</a>	01/29/2006	02/01/2006	<b>03/01/2006</b>	
<input checked="" type="checkbox"/>	<a href="#">Hib</a>	02/12/2006	03/01/2006	<b>04/01/2006</b>	12/31/2010
<input checked="" type="checkbox"/>	<a href="#">Influenza</a>	07/01/2006	07/01/2006	<b>01/01/2007</b>	12/31/2010
<input type="checkbox"/>	<a href="#">Meningo</a>	01/01/2017	01/01/2017	01/01/2021	12/31/2025
<input checked="" type="checkbox"/>	<a href="#">MMR</a>	01/01/2007	01/01/2007	<b>05/01/2007</b>	
<input checked="" type="checkbox"/>	<a href="#">Pneumococcal</a>	02/12/2006	03/01/2006	<b>04/01/2006</b>	12/31/2010
<input checked="" type="checkbox"/>	<a href="#">Polio</a>	02/12/2006	03/01/2006	<b>04/01/2006</b>	
<input checked="" type="checkbox"/>	<a href="#">Varicella</a>	01/01/2007	01/01/2007	<b>04/01/2007</b>	12/31/2018

# WISCONSIN BLOOD LEAD REGISTRY

Wisconsin  
Blood Lead  
Program

Staging Region 7.5.0

## Clients

manage clients  
merge clients

## Reports

blood lead reports  
check report status

## Data Exchange

exchange data  
check status

## Manage Access

manage lead access

## Debug

show exceptions

[home](#) [manage access/account](#) [forms](#) [related links](#) [logout](#) [help desk](#) [training](#) 

organization **WIR Physicians** • user **Jeff Havlena** • role **Blood Lead Pgm Developer**

### Client Information

Client Name (First - MI - Last)      DOB      Gender      Mother's Maiden      Chart #  
MIKE TESTER      01/01/2006      U      SMITH

Address      WI

(Housing/Age Criteria message text n/a at this time)

### Blood Lead Test History

Remove	Test Date	Result	Sample Type	Age (months)	Test Provider	Phone	Database
<input type="checkbox"/>	<a href="#">06/24/2008</a>	1 µg/dL	Capillary	29	WIR Physicians	(608) 555-1212	WIR
<input type="checkbox"/>	<a href="#">02/05/2008</a>	1 µg/dL	Capillary	25	WIR Physicians	(608) 555-1212	WIR

### Enter Blood Lead Test Data

Report

Print

Save

\*Draw Date:  

\*Sample Source: Capillary

\*Result:  µg/dL

\*Test Date:  

\*Ordering Clinician:

Purpose:

Result Date:  

Test Type: LeadCare

Comment:

**BLOOD LEAD RESULTS SCREEN WITHIN  
WISCONSIN IMMUNIZATION REGISTRY**

# BLOOD LEAD TESTING REPORT CARD



## Blood Lead Testing of Medicaid-Enrolled Children:

Report for Individual Medicaid Providers

for the period January 1, 2015, through December 31, 2015)

Provider: Dr. Example, M.D.

ID: 555555

5555 E Main Street

Anytown, Wisconsin 55555

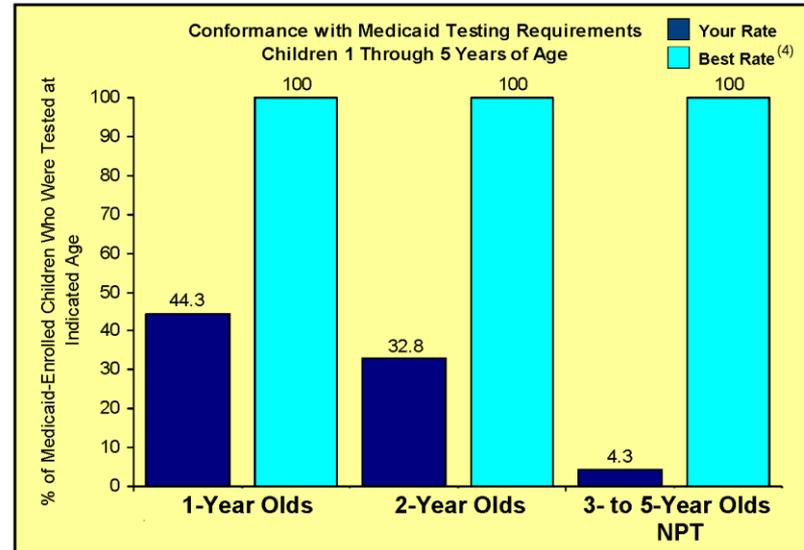
**Your Testing Rate: 33.8%**

### Your Testing Rate Information

Testing Numbers and Rates Among Medicaid-Enrolled Children	1-Year Olds	2-Year Olds	3- to 5-Year Olds <sup>(3)</sup> Olds NPT
Number of Children Seen	70	61	23
Number of Children Tested	31	20	1
<b>Testing Rate %<sup>(1)</sup></b>	<b>44.3</b>	<b>32.8</b>	<b>4.3</b>
Number of Children Seen <sup>(2)</sup> But Not Tested	39	41	22

Explanation:

- Percentage of Medicaid-enrolled children who have been seen by your practice and who received blood lead test(s) at the indicated age by your practice or elsewhere.
- Number of children who were seen by your practice but were not tested at the indicated age.
- This represents only 3- to 5-year olds not previously tested (NPT). The total number of 3- to 5-year olds you saw in SFY 2015 was: 110
- Best testing rate of all Medicaid providers in the state who saw 15 or more children in that age group.



### Did You Know That

- Federal rules require that all children who are enrolled in Medicaid receive a blood lead test at:

- 1 year of age
- 2 years of age
- 3 through 5 years if not previously tested

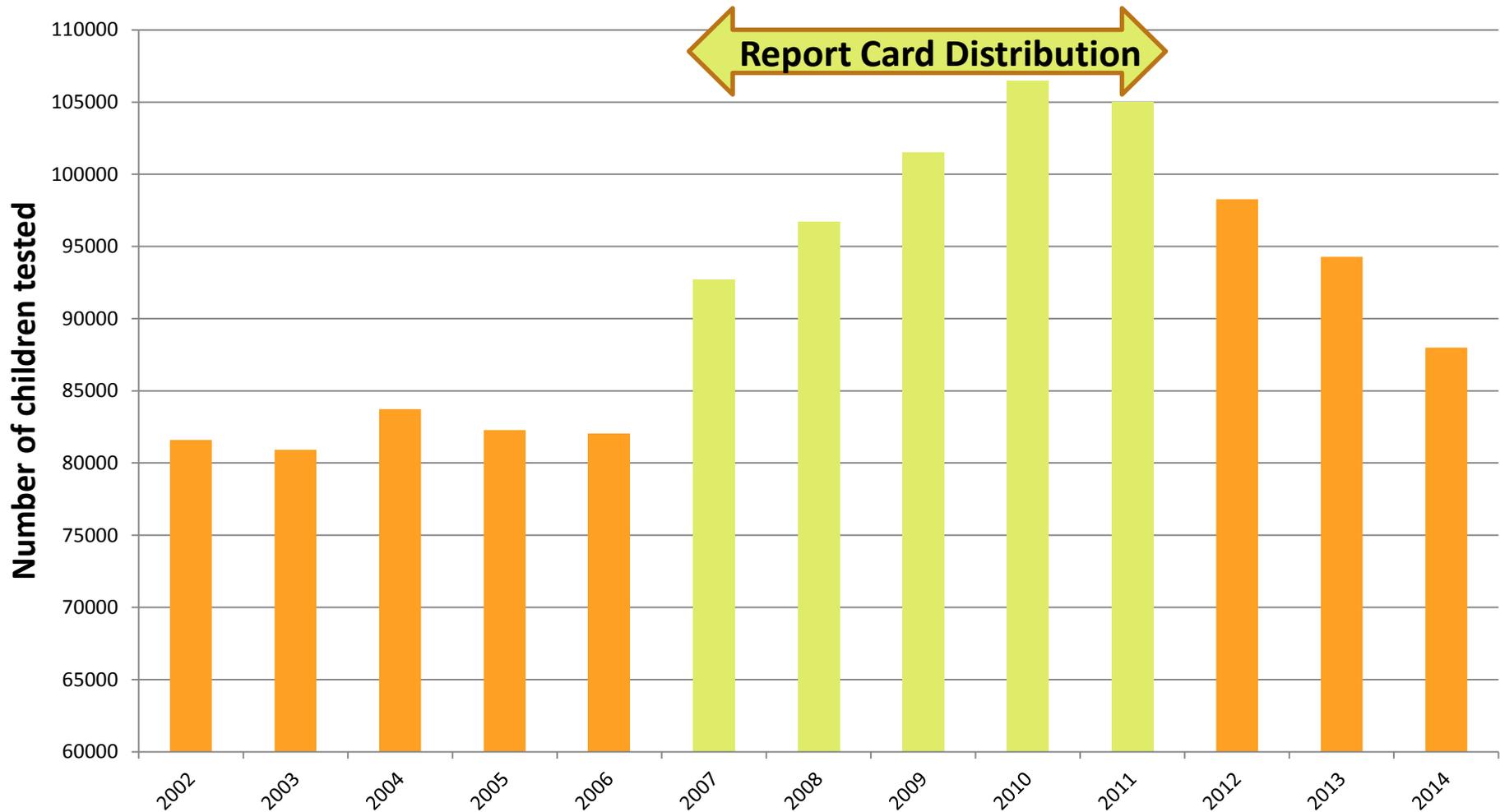
- There were more than 3,800 children identified with lead poisoning ( $\geq 5$  mcg/dL) in Wisconsin in 2015.

- 86% of children with lead poisoning in Wisconsin were enrolled in Medicaid in 2015.

- Only 32% of Medicaid-enrolled children received testing at both 1 and 2 years of age.

# INCREASE IN TESTING POST-REPORT CARDS

Number of Children <6 Years of Age Tested in Wisconsin by Year, 2002–2014



# EMERGING SOURCES OF LEAD

## LEAD POISONING: EMERGING SOURCES OF LEAD

### DID YOU KNOW THAT...

- In 2016 alone more than 4,300 Wisconsin children who were tested were found to have too much lead in their body?
- Fewer than one in 5 children get tested for lead in Wisconsin?
- The **Number One** source of lead for children is lead-tainted dust from deteriorated lead-based paint?



Children under age 6 are at greatest risk for lead exposure. A child is lead poisoned if the lead level is 5 micrograms per deciliter or higher. The only way to know a child is lead poisoned is by getting a blood test.



**BUT SOME CHILDREN ARE EXPOSED TO LEAD FROM OTHER SOURCES:**



**GET YOUR KIDS TESTED! GET YOUR HOME TESTED! GET THE FACTS!**

Go to **Lead-Safe Wisconsin** ([dhs.wi.gov/lead](http://dhs.wi.gov/lead)).

# MEDIATING THE EFFECTS OF LEAD

- Environmental stimulation – kinesthetic learning
- READ! READ! READ!
- Developmental assessment
  - Ages and Stages Questionnaires (ASQ)
  - <http://agesandstages.com>
- Continuously re-visit developmental assessment, including neurodevelopmental evaluation
- Family Engagement around Lead (Parent Orientation)
- CDC document “[Educational Interventions for Children Affected by Lead](#)”

# CONTACT INFORMATION

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608-267-0473, [marjorie.coons@wi.gov](mailto:marjorie.coons@wi.gov)

Jeff Raiche-Gill, Environmental Health Specialist

608-266-9382, [jefrrey.raichegill@wi.gov](mailto:jefrrey.raichegill@wi.gov)

Reghan O. Walsh, Public Health Educator

608-261-9432, [reghan.walsh@wi.gov](mailto:reghan.walsh@wi.gov)

Visit the *Lead-Safe Wisconsin* Website:

[www.dhs.wisconsin.gov/lead](http://www.dhs.wisconsin.gov/lead)



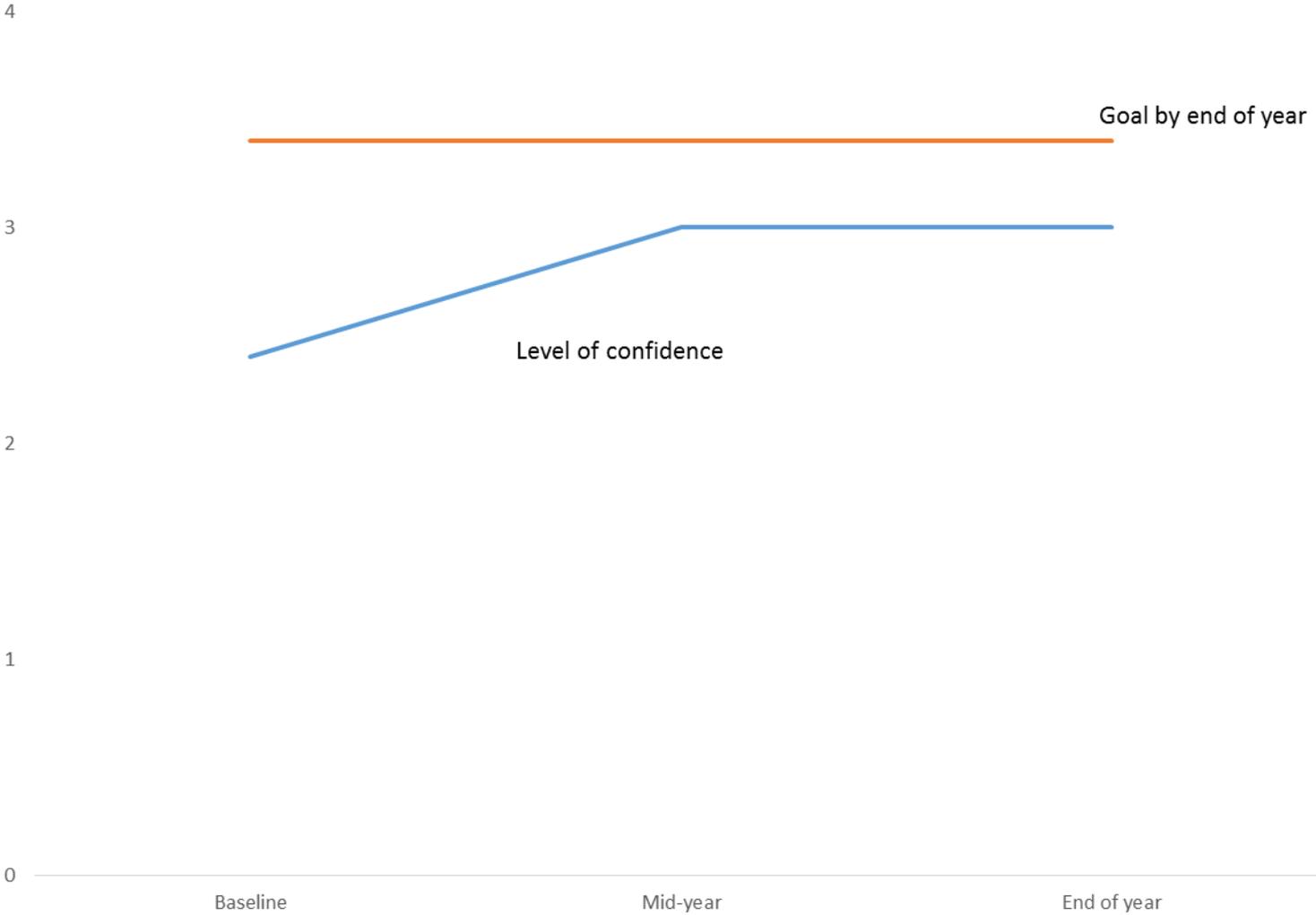
## 2018 LPHD Developmental Screening Quality Improvement Project

AIM	Drivers	Tests of Change
By December 31, 2018 local public health department professionals who have selected the developmental screening objective will experience a one point gain (on a 4 pt. likert scale) in their self-reported confidence in promoting universal developmental screening in their community.	Local public health department provides engagement, education and promotion of developmental screening in their community	<ul style="list-style-type: none"> <li>• Include information in birth letters to families</li> <li>• Provide trainings to specified target audience (physicians, child care providers, community partners)</li> </ul>
	Collaborate with relevant partners	<ul style="list-style-type: none"> <li>• Attend early childhood coalition meetings</li> <li>• Provide technical assistance to partners</li> </ul>
	Promote screening availability by multiple partners in the community	<ul style="list-style-type: none"> <li>• Explore who in the community is currently using screening</li> <li>• Provide screening opportunities at established events</li> </ul>
	Advocate for systems that identify children in need of screening or appropriate follow-up	<ul style="list-style-type: none"> <li>• Promote a system like WIR to track when children have been screened</li> <li>• Promote a universal tracking system</li> </ul>
	Conduct a community assessment	<ul style="list-style-type: none"> <li>• Identify where screening is being done in your community</li> <li>• Identify what resources are available and what resources are needed</li> <li>• Identify who is interested in receiving training</li> </ul>
	Promote established referral networks	<ul style="list-style-type: none"> <li>• Provide information to partners on Regional Centers for Children and Youth with Special Health Care Needs</li> <li>• Provide information to partners on WI First Step</li> <li>• Maintain local listing of resources</li> </ul>

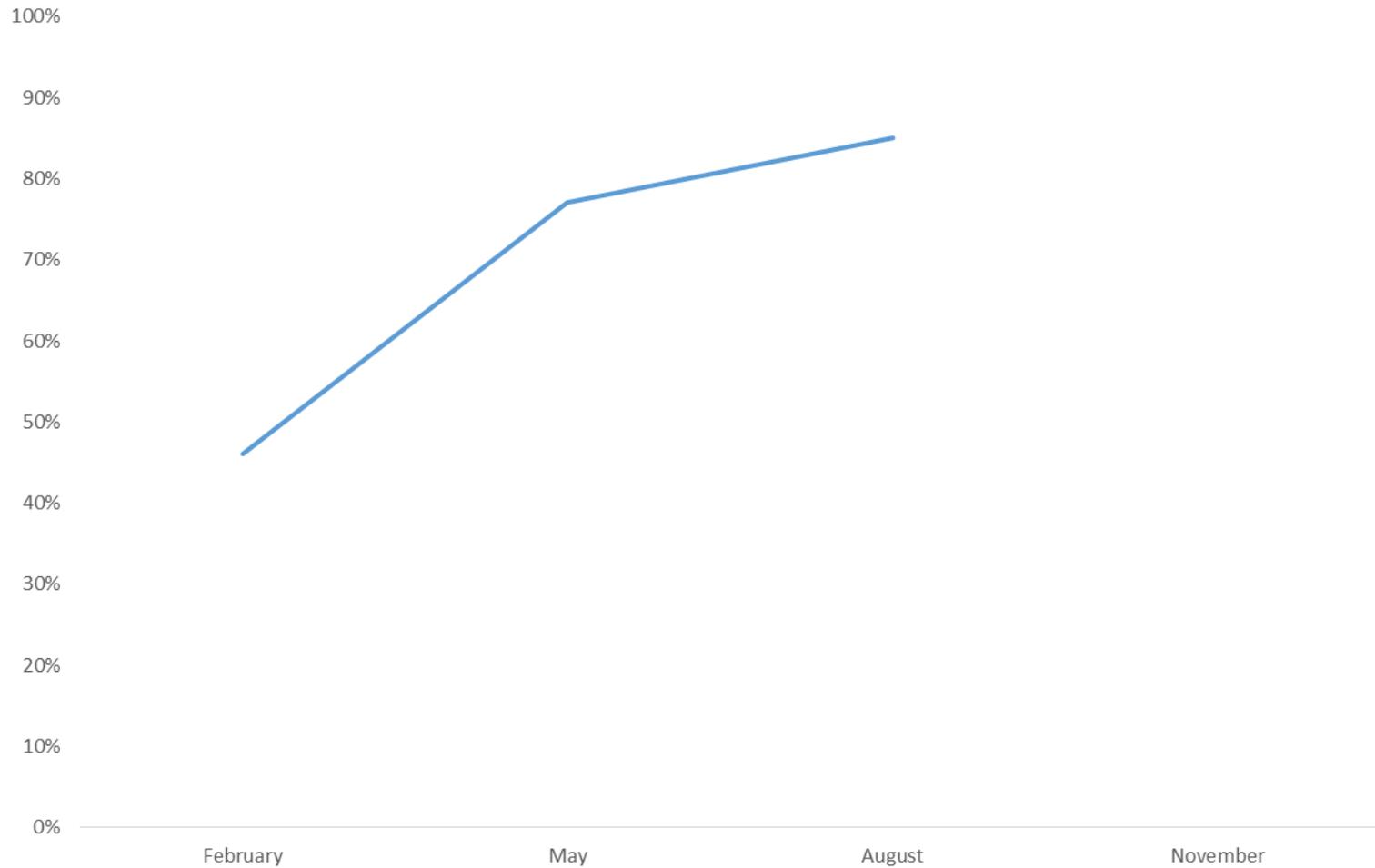
### Measures

1. LPHD professionals' self-reported levels of confidence in promoting universal developmental screening (Outcome)
2. Percent of LPHD teams attending developmental screening learning community calls (Process)
3. Percent of LPHD teams with an established early childhood coalition with regular meetings (Process)
4. Percent of LPHD teams who have engaged community partners on developmental screening (Process)
5. Percent of LPHD professionals who believe developmental screening work competes with their other professional responsibilities (Balancing)

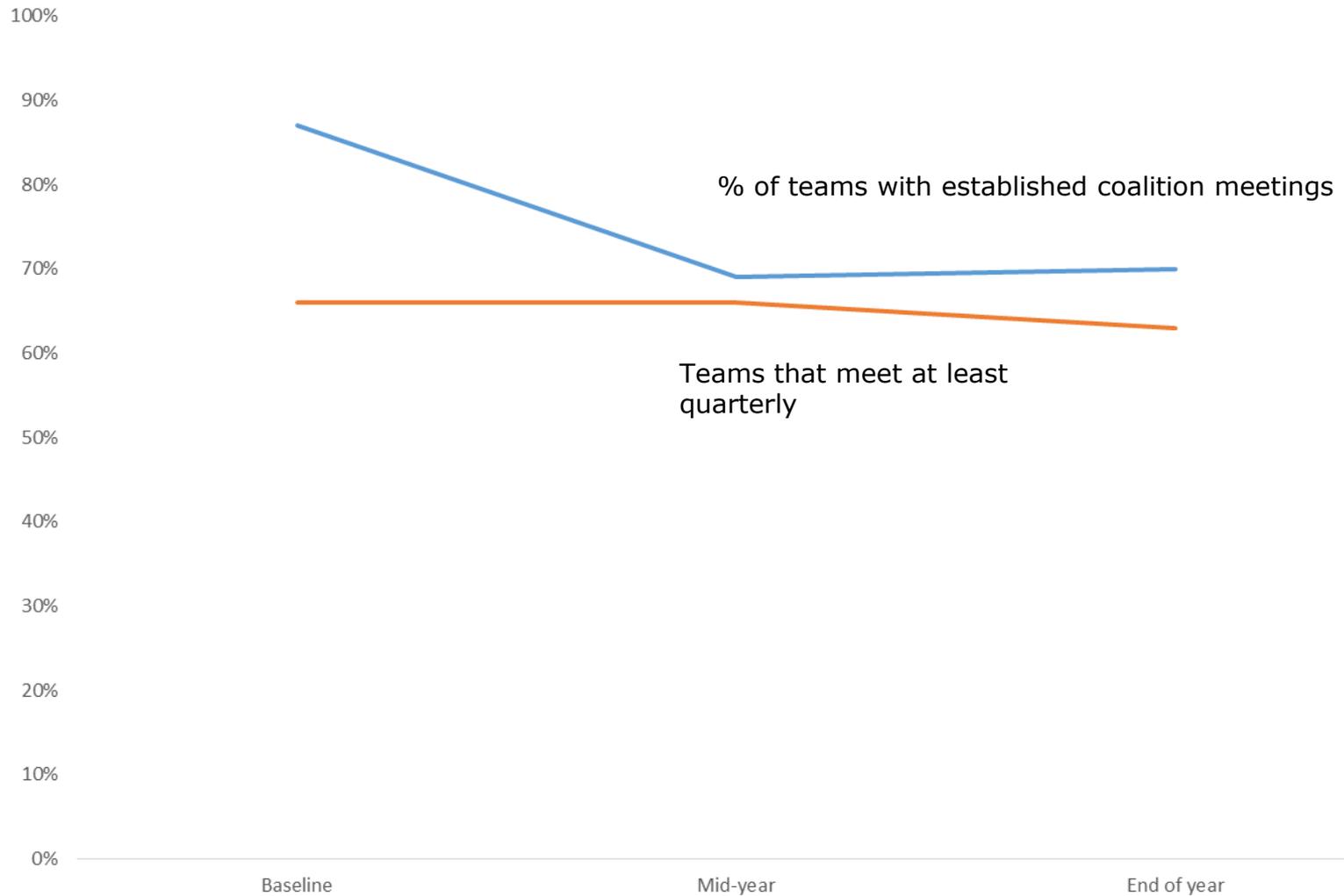
# Level of Confidence



## Team Participation on Calls



## Coalition Meetings



### Teams with engaged partners



## Developmental screening competing with work



**2018 LPHD Developmental Screening Quality Improvement Project  
(Grant Co.)**

AIM	Drivers	Tests of Change
<p>By December 31, 2018 local public health department professionals who have selected the developmental screening objective will experience a one point gain (on a 5pt. likert scale) in their self-reported confidence in promoting universal developmental screening in their community.</p>	<p>Local public health department provides engagement, education and promotion of developmental screening in their community</p>	<ul style="list-style-type: none"> <li>• Include information in birth letters to families</li> <li>• Provide trainings to specified target audience (physicians, child care providers, community partners)</li> </ul>
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**2018 LPHD Developmental Screening Quality Improvement Project  
(Pierce Co.)**

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### Wrap-up & Next Steps

- Online Platforms
- REDCap Reminders

### 2019 Learning Community Calls Schedule:

- February 20, 2019
- In-person MCH Summit: April 16 & 17 (Eau Claire)
- June 19, 2019
- August 21, 2019
- December 4, 2019

9:55-10:00 a.m.

# Thank you!



<https://www.wismhi.org/wismhi/Resources/Resources-for-Public-Health-Departments>

Naomi Kowald (nkowald@chw.org)

