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](https://zoom.us/j/3933567720)  
Conference Call-in #: 1-408-638-0968  
Meeting ID #: 393-356-7720

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:05 a.m.</td>
<td><strong>Welcome &amp; Introduction</strong></td>
</tr>
<tr>
<td>9:05-9:30 a.m.</td>
<td><strong>Lead Presentation</strong></td>
</tr>
</tbody>
</table>
|                 | Marjorie Coons, Reghan O. Walsh & Jeffrey Raiche-Gill  
|                 | Wisconsin Childhood Lead Poisoning Prevention Program |
| 9:30-9:55 a.m.  | **Developmental Screening Quality Improvement Project**  
|                 | • Driver Diagram  
|                 | • Team Highlights: Grant County |
| 9:55-10:00 a.m. | **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
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:

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.

Source: Wisconsin Blood Lead Testing Data
WISCONSIN LEAD POISONING TREND: 1996-2016

Number of Children Under Age 6 Found to be Lead Poisoned

Blood Lead Level
10 micrograms per deciliter
5 micrograms per deciliter

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

Source: Wisconsin Blood Lead Testing Data
AGE OF CHILD AS A RISK FACTOR

**Incidence Centered Age Grouping**

<table>
<thead>
<tr>
<th>Age Child First Diagnosed with Lead Poisoning</th>
<th>Blood Lead Level in Micrograms Per Deciliter</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTOne</td>
<td>0.8</td>
</tr>
<tr>
<td>One</td>
<td>1.7</td>
</tr>
<tr>
<td>Two</td>
<td>3.5</td>
</tr>
<tr>
<td>Three</td>
<td>3.1</td>
</tr>
<tr>
<td>Four</td>
<td>1.7</td>
</tr>
<tr>
<td>Five</td>
<td>1.2</td>
</tr>
</tbody>
</table>
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
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
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 Alzheimer’s disease
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

Child lives outside the cities of Milwaukee and Racine:
Assess for lead exposure by asking the “Four Easy Questions” at every well-child check-up from age 6 months to 6 years:
1. Enrolled in Medicaid or WIC?
2. Live in a building built before 1950?
3. Live in a building built before 1978 with remodeling?
4. Has a sibling with lead poisoning?

Answers are all “No”

Continue to assess at each well-child check-up until age 6

Any answer is “Yes” or unknown

Obtain a blood lead test at about age 12 and 24 months
Test any child aged 3-5 years who has never been tested

Screening test result is ≥5 mcg/dL

No

Yes

Further additional testing is not needed; continue to screen for increased risk of exposure according to the protocol.

Obtain venous BLL within recommended time

Venous BLL ≥5 mcg/dL

No

Yes

Initiate Intervention
WISCONSIN BLOOD LEAD REGISTRY

BLOOD LEAD RESULTS SCREEN WITHIN WISCONSIN IMMUNIZATION REGISTRY
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.
5555 E Main Street
Anytown, Wisconsin 55555

Your Testing Rate: 33.8%

<table>
<thead>
<tr>
<th>Testing Rate Information</th>
<th>1-Year Olds</th>
<th>2-Year Olds</th>
<th>3- to 5-Year Olds NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Children Seen</td>
<td>70</td>
<td>61</td>
<td>23</td>
</tr>
<tr>
<td>Number of Children Tested</td>
<td>31</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Testing Rate % (1)</td>
<td>44.3</td>
<td>32.8</td>
<td>4.3</td>
</tr>
<tr>
<td>Number of Children Seen (2) But Not Tested</td>
<td>39</td>
<td>41</td>
<td>22</td>
</tr>
</tbody>
</table>

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 (>=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.

Explanation:
1 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.
2 Number of children who were seen by your practice but were not tested at the indicated age.
3 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.
4 Best testing rate of all Medicaid providers in the state who saw 15 or more children in that age group.
INCREASE IN TESTING POST-REPORT CARDS

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

Report Card Distribution
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).
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

Margie Coons, Program Manager, Public Health Nurse
608-267-0473, marjorie.coons@wi.gov

Jeff Raiche-Gill, Environmental Health Specialist
608-266-9382, jefrrey.raichegill@wi.gov

Reghan O. Walsh, Public Health Educator
608-261-9432, reghan.walsh@wi.gov

Visit the Lead-Safe Wisconsin Website:
www.dhs.wisconsin.gov/lead
### 2018 LPHD Developmental Screening Quality Improvement Project

<table>
<thead>
<tr>
<th>AIM</th>
<th>Drivers</th>
<th>Tests of Change</th>
</tr>
</thead>
</table>
| 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.                     | - Include information in birth letters to families  
- Provide trainings to specified target audience (physicians, child care providers, community partners)  
- Collaborate with relevant partners                                                                 |  
- Attend early childhood coalition meetings                                                                 |  
- Provide technical assistance to partners                                                                 |  
- Promote screening availability by multiple partners in the community                                                                 |  
- Explore who in the community is currently using screening                                                                 |  
- Provide screening opportunities at established events                                                                 |  
- Advocate for systems that identify children in need of screening or appropriate follow-up | - Promote a system like WIR to track when children have been screened  
- Promote a universal tracking system                                                                 |  
- Conduct a community assessment                                                                                      |  
- Identify where screening is being done in your community  
- Identify what resources are available and what resources are needed  
- Identify who is interested in receiving training                                                                 |
| Promote established referral networks                                | - Provide information to partners on Regional Centers for Children and Youth with Special Health Care Needs  
- Provide information to partners on WI First Step  
- Maintain local listing of resources                                                                                 |  

### Measures
- LPHD professionals’ self-reported levels of confidence in promoting universal developmental screening (Outcome)
- Percent of LPHD teams attending developmental screening learning community calls (Process)
- Percent of LPHD teams with an established early childhood coalition with regular meetings (Process)
- Percent of LPHD teams who have engaged community partners on developmental screening (Process)
- Percent of LPHD professionals who believe developmental screening work competes with their other professional responsibilities (Balancing)
Team Participation on Calls

- February
- May
- August
- November
Coalition Meetings

% of teams with established coalition meetings

Teams that meet at least quarterly

Baseline | Mid-year | End of year
Developmental screening competing with work

Direction of goodness

Baseline | Mid-year | End of year

0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100%
## 2018 LPHD Developmental Screening Quality Improvement Project (Grant Co.)

**AIM**

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.

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Tests of Change</th>
</tr>
</thead>
</table>
| Local public health department provides engagement, education and promotion of developmental screening in their community | • Include information in birth letters to families  
• Provide trainings to specified target audience (physicians, child care providers, community partners) |
| Collaborate with relevant partners | • Attend early childhood coalition meetings  
• Provide technical assistance to partners |
| Promote screening availability by multiple partners in the community | • Explore who in the community is currently using screening  
• Provide screening opportunities at established events |
| Advocate for systems that identify children in need of screening or appropriate follow-up | • Promote a system like WIR to track when children have been screened  
• Promote a universal tracking system |
| Conduct a community assessment | • Identify where screening is being done in your community  
• Identify what resources are available and what resources are needed  
• Identify who is interested in receiving training |
| Promote established referral networks | • Provide information to partners on Regional Centers for Children and Youth with Special Health Care Needs  
• Provide information to partners on WI First Step  
• Maintain local listing of resources |

### 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)
### 2018 LPHD Developmental Screening Quality Improvement Project
( Pierce Co.)

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Tests of Change</th>
</tr>
</thead>
</table>
| Local public health department provides engagement, education and promotion of developmental screening in their community | • Include information in birth letters to families  
• Provide trainings to specified target audience (physicians, child care providers, community partners) |
| Collaborate with relevant partners | • Attend early childhood coalition meetings  
• Provide technical assistance to partners |
| Promote screening availability by multiple partners in the community | • Explore who in the community is currently using screening  
• Provide screening opportunities at established events |
| Advocate for systems that identify children in need of screening or appropriate follow-up | • Promote a system like WIR to track when children have been screened  
• Promote a universal tracking system |
| Conduct a community assessment | • Identify where screening is being done in your community  
• Identify what resources are available and what resources are needed  
• Identify who is interested in receiving training |
| Promote established referral networks | • Provide information to partners on Regional Centers for Children and Youth with Special Health Care Needs  
• Provide information to partners on WI First Step  
• Maintain local listing of resources |

### 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)
<table>
<thead>
<tr>
<th>Wrap-up &amp; Next Steps</th>
<th>9:55-10:00 a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Online Platforms</td>
<td></td>
</tr>
<tr>
<td>• REDCap Reminders</td>
<td></td>
</tr>
</tbody>
</table>

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
Thank you!

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

Naomi Kowald (nkowald@chw.org)