Childhood Lead Poisoning
The role of Providers in a new effort to address an old problem.

Andrew Smith, SM, ScD
State Toxicologist
Maine AAP Annual Meeting
October 15, 2016

No Safe Level of Blood Lead
IQ deficits at low blood lead levels

Lanphear et al., VOLUME 113 | NUMBER 7 | July 2005 • Environmental Health Perspectives

Measurable Effects of Low Blood Lead Levels

McLain et al., VOLUME 131 | NUMBER 6 | June 2013 • Pediatrics
Elevated Blood Lead Levels and Reading Readiness at the Start of Kindergarten

Reading readiness at the start of kindergarten is independently associated with blood lead levels below 10 ug/dL.

CDC’s Changing Blood Lead Threshold for Intervention

Maine Center for Disease Control and Prevention
New Statutory Definition of “Lead Poisoned”

Lead Poisoning if a **confirmed** Blood Lead Level is \( \geq 5 \) ug/dL

A lot more children identified as “Lead Poisoned”

Number of Newly Identified Children with an Elevated Blood Lead Level by Specimen Type Statewide - 2014

If a lead poisoned child is identified: We Inspect

Test for lead in paint, dust, water, soil, and sometimes more

If We Find Lead Hazards ...

Post Relocate Abate Lead Family if Hazards needed
Role of Providers
Screen Children

48 %
of 1 year olds on MaineCare

35 %
of 2 year olds on MaineCare

Higher Screening Rates are Possible!

Blood Lead Screening Rates for Lewiston-Auburn

In-Office Blood Lead Testing

In-Office Blood Lead Testing

* As of October 5th, 2016

Number of Blood Lead Screening Tests Performed In-Office

- 2012: 52
- 2013: 1,791
- 2014: 2,014
- 2015: 2,627
- 2016*: 2,959

* As of October 5th, 2016
**Role of Providers**

**Confirm Screening Results**

**NEW!**

*Capillary Lead Test Confirmation Schedule*

<table>
<thead>
<tr>
<th>Capillary Blood Lead Level</th>
<th>Confirm with Venous Test Kit*</th>
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</thead>
<tbody>
<tr>
<td>5-9 ug/dL</td>
<td>3 months</td>
</tr>
<tr>
<td>10-44 ug/dL</td>
<td>1 month</td>
</tr>
<tr>
<td>45-99 ug/dL</td>
<td>48 hours</td>
</tr>
<tr>
<td>100-699 ug/dL</td>
<td>24 hours</td>
</tr>
<tr>
<td>700+ ug/dL</td>
<td>Immediately as an emergency test</td>
</tr>
</tbody>
</table>

**Current Confirmation Rates**

血液铅测试确认率

40% currently confirmed

**Role of Providers**

**Promptly Notify Families of Test Results**

2 days

**Coming Eventually...**

A lead module for Maine’s Immunization Registry
If Questions

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