Lead in RI – a public health response

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RI Department of Health
Demographics

- Lead poisoning rates are particularly high in some core city neighborhoods.

- Areas with higher rates tend to have:
  - More pre-1978 housing
  - Populations with lower incomes
  - Larger ethnic and racial minority populations
Lead Poisoning Incidence in Rhode Island

- Rates have substantially decreased over time
- Rates have leveled off in recent years
- Rate in core cites is twice that of the rest of the State
- 943 children with blood lead above CDC level of concern were newly identified in 2015
Blood Lead Screening

- Healthcare providers are required to conduct at least 2 blood lead tests on all children by three years of age:
  - 1st test between 9 and 15 months
  - 2nd test at least 12 months later, between 21 and 27 months

- Screening rates have remained constant (aprox. 78% 1st test, 55% 2nd test)

- Screening rates are slightly higher in core cities than statewide

- 2nd screening is important – blood lead levels in 3.6% of kids tested twice were below the CDC level in the 1st test and above that level in the 2nd test
Insurance Status

- Roughly half (49%) of RI children screened for lead are covered by Medicaid

- However, Medicaid-insured children make up:
  - 66% of tested children who have blood lead levels of 5-9 µg/dL, and
  - 70% of tested children who have blood lead levels of 10 µg/dL or higher

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### Children with Elevated Blood Lead Levels - 2015

<table>
<thead>
<tr>
<th>Insurance Status</th>
<th>5-9 µg/dL</th>
<th>&gt;=10 µg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Insurance or none reported</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>348</td>
<td>61</td>
</tr>
<tr>
<td>Medicaid</td>
<td>738</td>
<td>159</td>
</tr>
</tbody>
</table>

Novais
Case Management

- All children with blood lead levels at or above 5 µg/dL (the CDC level of concern) are referred to one of four lead centers for case management.

- Families accepting lead center services receive a home visit, which includes a visual assessment of the home; education in lead hazards, nutrition and cleaning techniques; and temporary lead hazard control measures to mitigate further exposure to lead hazards.

- Medicaid reimburses for case management services. In July 2016, Medicaid’s case management eligibility criterion was reduced from 15 to 5 µg/dL.

- Private insurers currently don’t reimburse for lead case management.
Environmental Lead Inspections

- Comprehensive environmental lead inspections (CELIs), which include analysis of paint, dust, water, and soil in homes, are offered to families of children with higher blood lead levels.

- Medicaid reimburses for CELIs. In July 2016, Medicaid’s CELI eligibility criterion was reduced from 20 to 10 µg/dL.

- Private insurers do not reimburse for CELIs.
Inspection Results

- Interior and/or exterior hazards related to lead paint are detected in all CELI inspections.

- Water levels above EPA benchmarks are detected in a small portion of inspected homes, but all of those homes also have other hazards.

<table>
<thead>
<tr>
<th>Hazard</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Dust</td>
<td>75.0%</td>
<td>72.5%</td>
</tr>
<tr>
<td>Exterior Paint</td>
<td>92.9%</td>
<td>85.0%</td>
</tr>
<tr>
<td>Interior Paint</td>
<td>89.3%</td>
<td>77.5%</td>
</tr>
<tr>
<td>Soil</td>
<td>78.6%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Water</td>
<td>3.6%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>
Challenge – Foster Care Homes

- Foster care homes are required to demonstrate that they are lead-safe or lead-free
- That requirement, as well as other licensing requirements, led to a backlog in homes waiting for licenses
- Working with Rhode Island Housing and other sister agencies, backlogged foster homes were inspected this summer
- Many potential foster homes, especially those in urban multi-family buildings, did not pass the inspections and will require some degree of remediation
Lead in Schools’ Drinking Water

Self-supplied schools are regulated as Public Water Systems

- Number of samples determined by Population Served.
- Frequency determined by Previous Sample Results.
- Exceedances (90\textsuperscript{th} Percentile above 15 ppb) trigger Required Actions to remediate.
- 25 years of data so far! All schools are currently in compliance and below Lead Action Level.
Lead in Schools’ Drinking Water
Lead in Schools’ Drinking Water

Schools on Municipal Systems are not tested for Lead under the Safe Drinking Water Act

- New legislation requires monitoring, but does not prescribe protocols, frequency, etc.
- Advisory Group has been convened for guidance: CLAP, Healthy Homes, RIDE, DCYF, etc.
- US EPA has prepared “3Ts” guidance for lead in schools, currently undergoing revision.
- Follow-up after detection is not specified . . . .
Lead in Schools’ Drinking Water

Monitoring Required by New Legislation

- All public schools. Every tap at every school? An expensive and time-consuming project, if so!
- Prioritizing schools serving younger children, those with already elevated blood lead levels.
- What actions will be taken if high lead levels are found? Who will take those actions?
- Report due by 30 April 2017 with findings and plan for implementation.
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