



## Lead Poisoning Prevention

A Comprehensive Public Health  
Response to an Environmental  
Problem

## Guest Speakers

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- School of Public Health, University at Albany
- NYS Department of Health
- NYS Community Health Partnership

### Special Thanks to

- NYS Association of County Health Officials
- NYS Nurses Association

## Viewer Call-In

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## Evaluations

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### Childhood Lead Poisoning

- Lead is a systemic toxin with adverse effects on children's physical, cognitive, and behavioral development
- Young children are at highest risk for lead poisoning




### Lead Poisoning

- Defined as blood lead level (BLL) 10 mcg/dL or higher
- Trigger for medical and public health intervention
- Negative effects of lead exposure on IQ can be detected even in 5-9 mcg/dL range




### Pathways of Lead Exposure

- Paint chips & dust from pre-1978 housing are primary source of exposure for children
  - Breathe in or swallow lead dust
  - Eat lead paint chips



### Pathways of Lead Exposure

- Swallow or suck lead-containing items
  - Toys
  - Jewelry



### Pathways of Lead Exposure

- Use of some imported products
  - Dishes/pottery
  - Traditional medicines
  - Spices
  - Cosmetics



### Lead Poisoning: A Public Health Success and Ongoing Challenge

- The incidence of lead poisoning has declined dramatically over the last two decades, nationally and in New York State
- Increasingly concentrated in specific communities with high proportion of old housing and poverty
  - 90% of cases in 18 counties + NYC (2005-07 analysis)

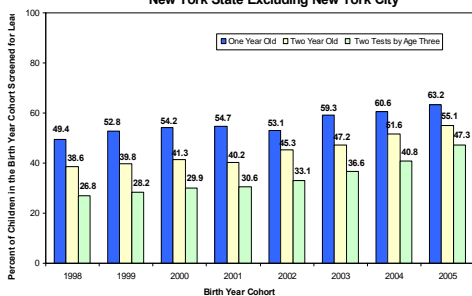
## NYS Department of Health's Comprehensive Response

- Regulations for testing and follow-up of children & pregnant women
- Statewide registry of children's lead levels
- Public education & community outreach
- Coordination of activities with other federal, state and local agencies & programs
- Designation of communities of concern for primary prevention programs

## Lead Poisoning Identification

- In NYS, health care providers are required to:
  - Test all children for lead at or around 1 and 2 years.
  - Assess all children 6 months to 6 years for lead exposure annually and test those children at risk
  - Assess all pregnant women and test those women at risk for lead exposure

Percent of Children Tested for Lead At or Around Age One Year and At or Around Age Two Years and Two Tests by Age Three; 1998 - 2005 Birth Cohorts (1998 to 2008 Blood Lead Test Data)<sup>1,2</sup>  
New York State Excluding New York City



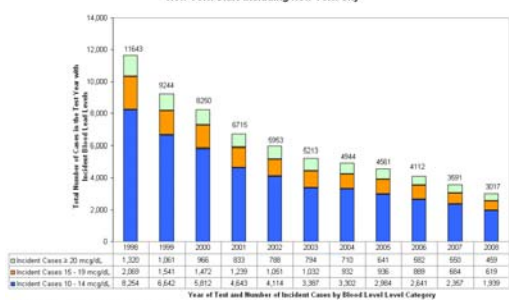
<sup>1</sup> At or around age one year is defined as 9 months to < 18 months and at or around age two years is defined as 18 months to < 36 months.  
<sup>2</sup> Birth Cohorts beyond 2005 are not included in this analysis because those children had not yet reached 36 months of age by 2008.

## Public Health Surveillance

- All permitted laboratories and physician office laboratories are required to report blood lead test results to the Department of Health
  - Statewide childhood lead registry
  - Local data distributed to Local Health Departments
- Comprehensive data report for 2006-07 available on DOH website

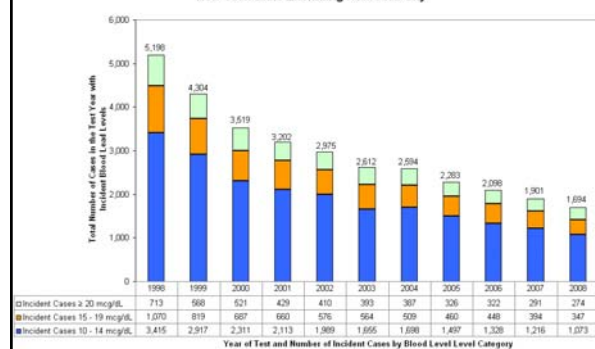


Summary Trends in the Number of Incident Cases Among Children Under Age Six Years by Blood Lead Level Category; 1998 to 2008 Blood Lead Test Data<sup>1</sup>  
New York State including New York City

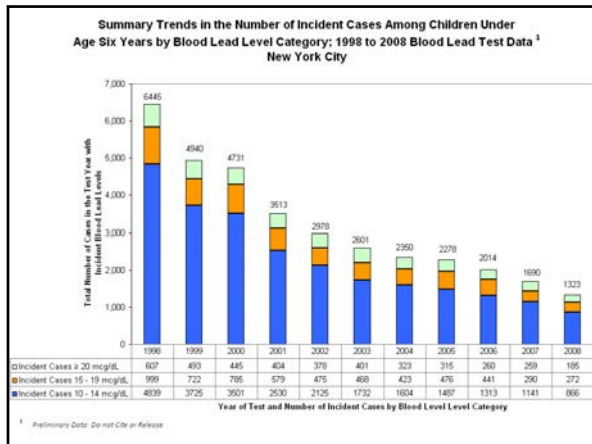


<sup>1</sup> Preliminary Data. Do Not Cite or Release

Summary Trends in the Number of Incident Cases Among Children Under Age Six Years by Blood Lead Level Category; 1998 to 2008 Blood Lead Test Data<sup>1</sup>  
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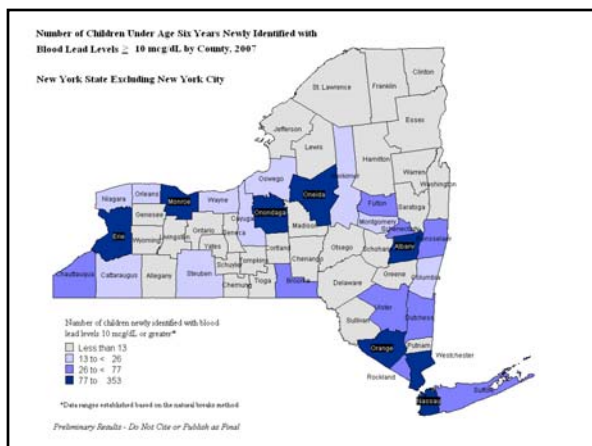


**Number of Children < Age 6 years with New Cases of Lead Poisoning, by BLL (2008 preliminary data)**

	10 - 14 mcg/dL	15 - 19 mcg/dL	$\geq 20$ mcg/dL	Total $\geq 10$ mcg/dL
New York City	866	272	185	1,323
Rest of State	1,073	347	274	1,694
<b>NYS Total</b>	<b>1,939</b>	<b>619</b>	<b>459</b>	<b>3,017</b>

- Follow-up Services for Children with Elevated Blood Lead Levels**
- For Blood Lead Level (BLL)  $\geq 10$  mcg/dL:
    - Blood lead level monitoring
    - Risk reduction education
    - Nutritional counseling
  - For BLL  $\geq 15$  mcg/dL:
    - Complete diagnostic evaluation, including detailed lead exposure assessment, nutritional assessment, and developmental screening
    - Medical treatment, as necessary
    - Environmental investigation

- Follow-up Services for Children with Elevated Blood Lead Levels**
- Local Health Departments (LHDs) communicate and coordinate with health care providers
  - LHDs provide environmental management
    - Environmental services provided by NYSDOH District Offices in 21 “partial service” counties
  - NYSDOH provides guidance, assistance & oversight





### Elevated Blood Lead- Environmental Response

- Case management team
  - Parent/Guardian/Care taker
  - Family Doctor
  - County Health Department
  - Public Health Nurses, Caseworkers
  - Sanitarian or Technician (EPA Lead Assessor)
- Care coordination is vital to success of intervention



### Elevated Blood Lead- Environmental Response

- Exposure investigation
  - Patient specific
- Examines many possible sources
  - Housing conditions at all locations
  - Other media- soil, water, dust, jewelry, cosmetics, mini-blinds, toys, food, pottery.....
  - Other family behaviors
    - Cultural, hobbies, occupational



### Elevated Blood Lead- Environmental Response

- Condition conducive to lead poisoning
  - Defective lead paint, or
  - Any environmental condition resulting in significant lead exposure
- Exposure report prepared
  - List of hazards
  - Shared with case management team



### Elevated Blood Lead- Environmental Response

- Notice and Demand
  - legal document
  - requires owner to eliminate conditions conducive to lead poisoning
  - specific time frame for compliance
  - requires specific safety conditions
    - Remediation plan



### Elevated Blood Lead- Environmental Response

- **Remediation Plan**
  - Agreement with the property owner
  - Specific information on remediation of individual components
  - Refines time frames
  - “Permanent” abatements must be performed by EPA certified firm
  - Interim controls receive intensive oversight
  - Provides education on process

### Elevated Blood Lead- Environmental Response

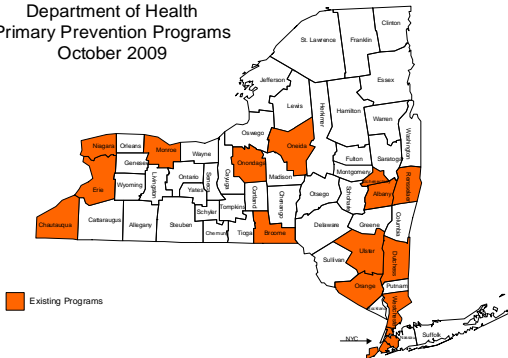
- **Revisits**
  - scheduled dates
    - for compliance
  - by request
    - by owner or occupant
  - evaluate work practices and progress
    - for compliance
- **Case closure**
- **Enforcement** (administrative hearing, fines)
- **Dormancy**
  - Vacant dwellings are followed



### Primary Prevention Program

- **Public Health Law 1370-a**
  - Local assistance for the primary prevention of lead poisoning
  - Amended the Public Health Law
    - Creates a program for the prevention of lead poisoning in “communities of concern”
    - Fifteen localities contain zip codes that account for over 80% of BLL's above 10ug/dl

New York State  
Department of Health  
Primary Prevention Programs  
October 2009



### Primary Prevention Pilot Counties (All active grantees)

- Albany
- Erie
- Oneida
- Onondaga
- Orange
- Westchester
- Monroe
- New York City
- Broome
- Chautauqua
- Schenectady
- Dutchess

### 3 New Grantees

- **Niagara County**
- **Rensselaer County**
- **Ulster County**



<b>Primary Prevention Program</b>
<ul style="list-style-type: none"> <li>• <b><u>Produce local “Primary Prevention” plan</u></b> <ul style="list-style-type: none"> <li>• Identify scope of problem locally</li> <li>• Community partnerships</li> <li>• Feasible approaches to targeting, inspection, hazard control, and enforcement</li> <li>• Capacity building</li> <li>• Improve funding capacity for hazard control projects</li> </ul> </li> </ul>

<b>Primary Prevention Program</b>
<ul style="list-style-type: none"> <li>• <b>Varied Approaches</b> <ul style="list-style-type: none"> <li>• Local ordinances</li> <li>• Local partnerships</li> </ul> </li> <li>• <b>Area of High Risk</b> <ul style="list-style-type: none"> <li>• Inspection of high risk units</li> <li>• Notice and Demand</li> <li>• Other enforcement</li> </ul> </li> </ul> 

<b>Primary Prevention Program Progress</b>
<ul style="list-style-type: none"> <li>• <i>Between October 2007 &amp; June 2009</i></li> <li>• Grantees added in stages</li> <li>• Evaluation of the various approaches <ul style="list-style-type: none"> <li>• Year One Evaluation Report <ul style="list-style-type: none"> <li>• NYSDOH website - <a href="http://www.nyhealth.gov">www.nyhealth.gov</a></li> </ul> </li> <li>• Year #2 Evaluation <ul style="list-style-type: none"> <li>• In progress</li> </ul> </li> </ul> </li> </ul>

<b>Primary Prevention Program Progress</b>
<ul style="list-style-type: none"> <li>• <i>Between October 2007 &amp; June 2009</i></li> <li>• There were <b>958</b> paid events (ads, bus flyers, DVDs) reaching an estimated total of <b>6 million</b> people.</li> <li>• Home visits for <b>1,823</b> children age six and under—those most vulnerable to neuro-developmental damage. <ul style="list-style-type: none"> <li>• Referring <b>1,441</b> children for blood-lead testing.</li> </ul> </li> </ul>

<b>Primary Prevention Program Progress</b>
<ul style="list-style-type: none"> <li>• <i>Between October 2007 &amp; June 2009</i></li> <li>• Investigating 4,426 housing units for lead-based paint (LBP) <ul style="list-style-type: none"> <li>• 2,340 units had deteriorated paint or LBP dust hazards.</li> </ul> </li> <li>• Creating at least 567 lead-safe housing units, with many more in the pipeline.</li> <li>• Training 1,705 property owners, contractors, and do-it-yourselfers in Lead-Safe Work Practices.</li> </ul>

<b>Primary Prevention Program</b>
<ul style="list-style-type: none"> <li>• GIS used mapping to refine target area</li> <li>• Create referral mechanism ‘to’ and ‘from’ local partners</li> </ul> 

### **Primary Prevention Program**

- **Address property owner and resident resistance to enable inspections**
- **Create administrative infrastructure**
  - **Housing Court**
  - **Administrative**
  - **Code enforcement**
- **Interagency coordination of activities**

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