



# Lead Poisoning in Rhode Island

Daniela Quilliam, MPH  
Rhode Island Department of Health

# Overview



- Lead screening guidelines in RI
- Lead screening rates
- Rates of lead poisoning over time

# Universal Screening in RI



- Screen all children up to 6 years of age for lead poisoning at least once annually
- Report all blood lead test results to the Dept of Health

# Screening Guidelines



- 12 months of age- blood lead screen
- 24 months of age- blood lead screen
- 36 months of age . . .
  - If one or both of first two tests are ABOVE 10  $\mu\text{g}/\text{dL}$ , continue to screen annually until age 6
  - If first two tests are BELOW 10  $\mu\text{g}/\text{dL}$ , use the Risk Assessment Questionnaire

# Risk Assessment Questionnaire



- Five Yes/No questions
  - Chipping, peeling paint
  - Renovations
  - Sibling or playmate lead poisoned
  - Live near industrial site that may use lead
  - Live w/adults whose job/hobby involves lead
- If “Yes” to any question, child should have a blood lead screen

# What Happens with the Blood Lead Test Results?



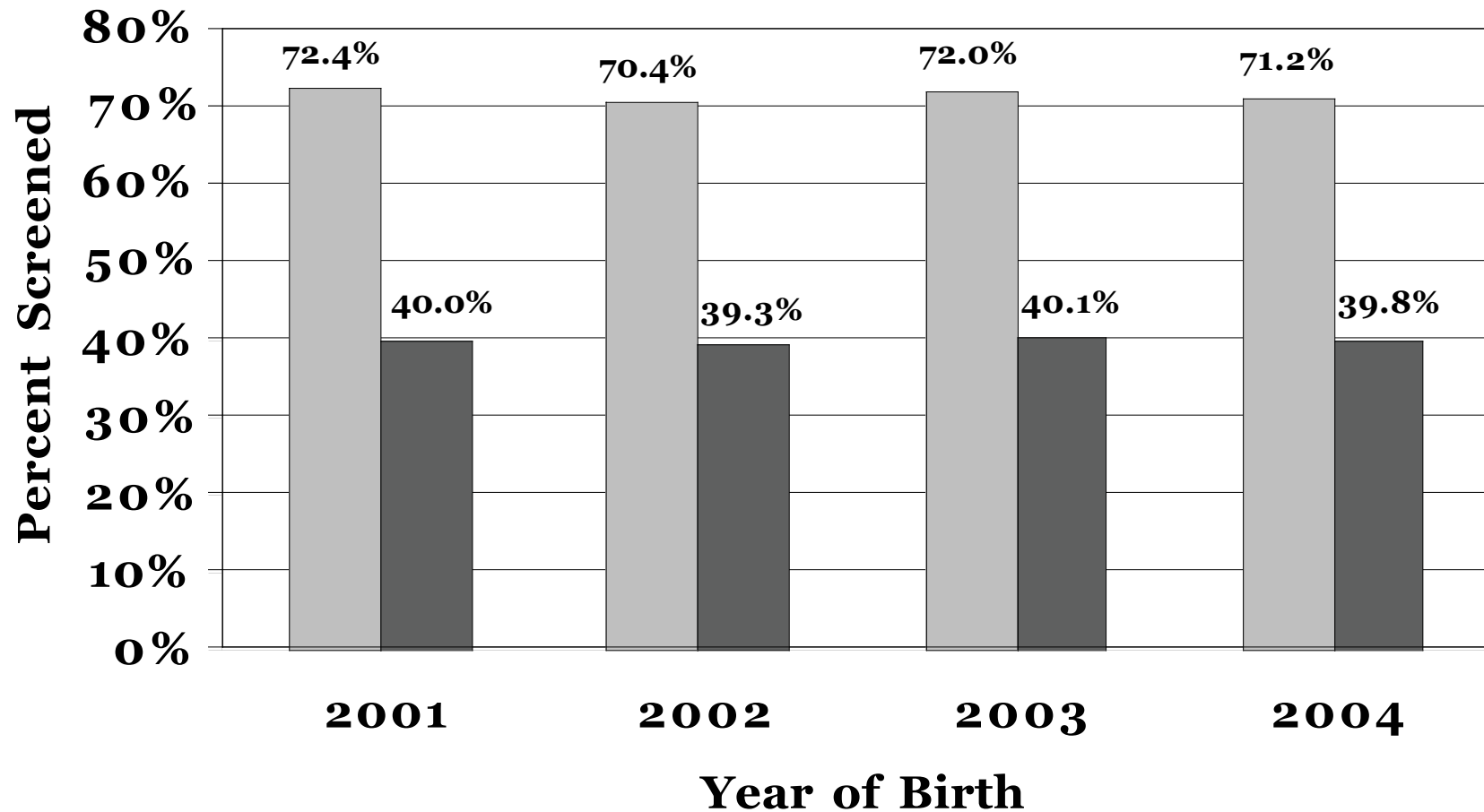
- All results are sent to the Dept of Health and maintained in database
  - Used to make referrals to case management services
  - Used to track trends
    - Screening
    - Lead poisoning

# Referrals to Case Mgt



Category	Action Level	Action
<b>Elevated Blood Lead</b>	Venous BLL 10-14 $\mu\text{g}/\text{dL}$	Family is sent educational material, and is referred to a lead center for an in-home lead education visit.
	Venous BLL 15-19 $\mu\text{g}/\text{dL}$	Family is referred to a lead center for an in-home lead education visit and a visual assessment to identify lead hazards.
<b>Persistent Lead Poisoning</b>	Two venous BLL 15-19 $\mu\text{g}/\text{dL}$ done 90-365 days apart	Family is referred to a lead center for an in-home lead education visit and a visual assessment to identify lead hazards, AND the family is offered an environmental inspection.
<b>Significant Lead Poisoning</b>	Venous BLL $\geq 20$ $\mu\text{g}/\text{dL}$	

# Lead Screening Rates



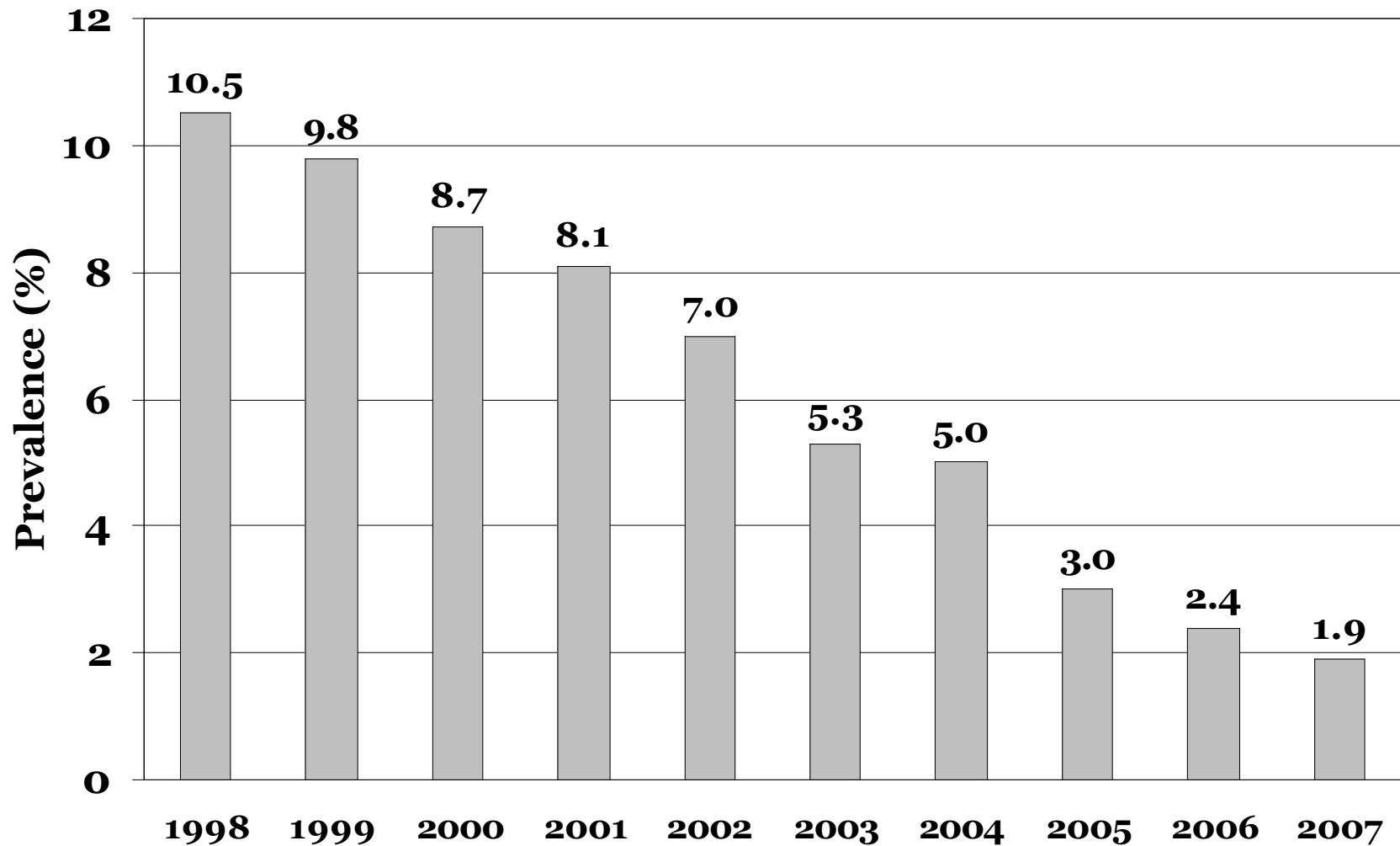
- At least on lead screening by 18 months of age
- At least two lead screening, a minimum of 12 months apart, by 36 months of age

# Prevalence



- Number of existing cases of a disease in a population at a certain point in time
- Ex: # of lead poisoned children in 2007
- Provides a snapshot of disease occurrence in the population

# Prevalence of Lead Poisoning in RI

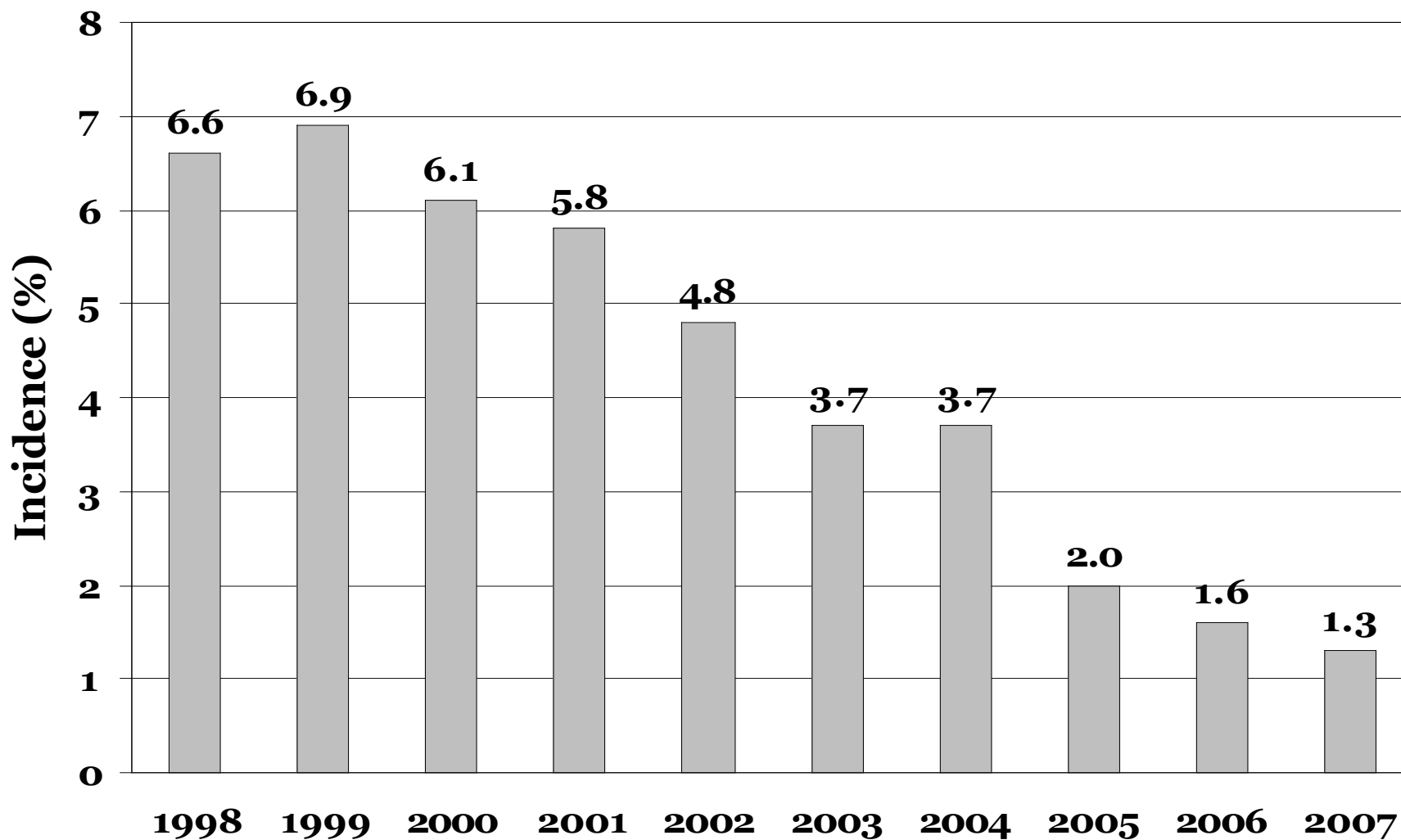


# Incidence

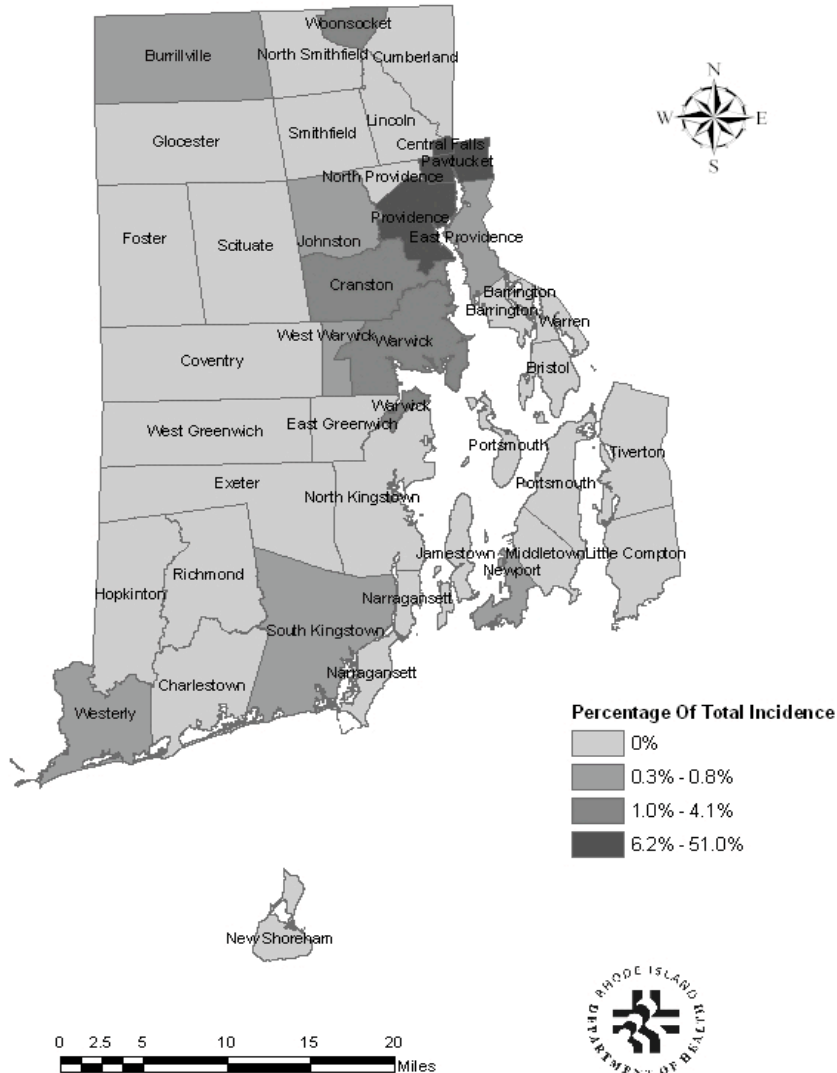


- Number of NEW cases of a disease that develops in a population at risk during a certain period of time
- Ex: # of children lead poisoned for the first time in 2007
- Subset of prevalence
- Used to estimate the probability of someone developing a disease

# Incidence of Lead Poisoning in RI 1998-2007



# Incidence by City and Town



- Highest Incidence
  - Providence
  - Central Falls
  - Pawtucket



# Summary



- All children under the age of six should be screened for lead according to the guidelines
- Lead screening results sent to the Dept of Health used to . . . .
  - Monitor screening
  - Refer children to case management
  - Track trends in lead poisoning over time



**Questions?**

**Daniela Quilliam, MPH**

Public Health Epidemiologist

401-222-7730

[daniela.quilliam@health.ri.gov](mailto:daniela.quilliam@health.ri.gov)

[www.health.ri.gov](http://www.health.ri.gov)