

# **Evaluating California's Adult Blood Lead Surveillance System**

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# ELVIS Team

*(Elevated Lead Visual Information System)*

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# Background

- **CA has required blood lead level (BLL) reporting since 1987**
  - 1987 – 2002, only 25 ug/dL and higher
  - 2003: Universal and electronic reporting
- **OLPPP's surveillance goals (all require *employer information*):**
  - Identify & follow up on lead poisoning cases
  - Target prevention efforts
  - Track employer progress in reducing Pb exposure
  - Identify industries / employers who aren't testing

# Background II

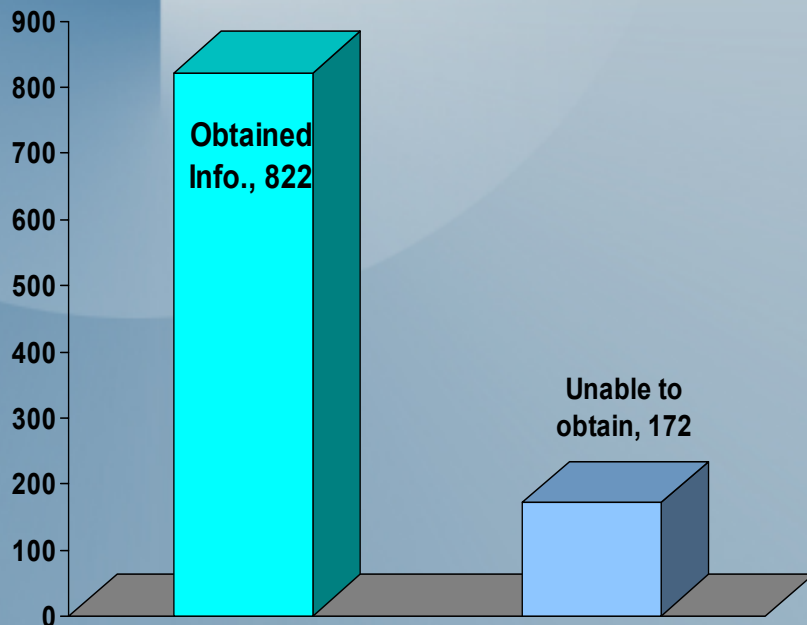
- Most (85%) BLLs reported **without employer**: OLPPP unable to fulfill public health goals
- Recent Adult Pb medical management guidelines
- Evaluate data completeness and quality:
  - What information are we missing?
  - What resources required to obtain it?
  - Other “fixes” to the problem of missing employer information?

# Methods

- Currently, call only on BLLs  $\geq 20$  ug/dL to obtain missing employer information
- Two week period, called on all BLLs drawn (1,437) that were reported with no employer (1,119) (80%)
- Made up to 6 calls per result, to analyzing laboratory and/or ordering provider



# Results: Staff Time Required and Calling Success

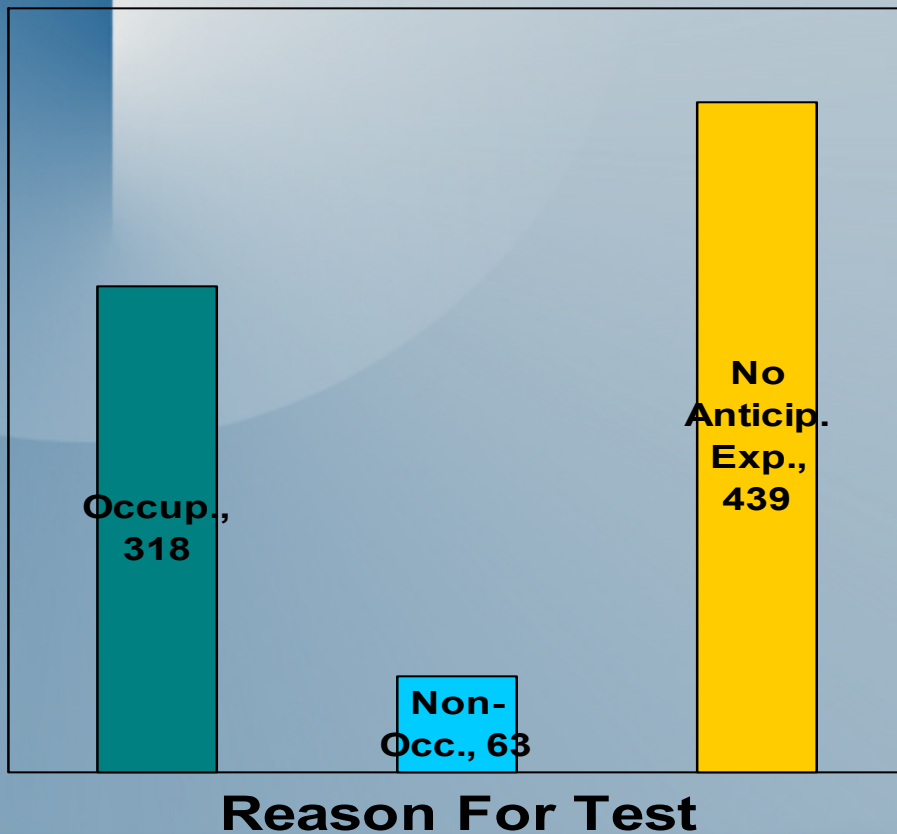


- 1,064 / 1,119 calls completed (95%)
- 18 minutes / result; usually 3 calls/result
- Total hours: 350 hours / 1/5 FTE
- Obtained information: 822 / 994 individuals (83%)
- 17% of the time, unable to obtain information

## Results II: Why was information not obtainable?

- Unable to reach MD: 98 (*10% of calls made*)
- MD unable to locate patient: 36 (*4%*)
- Pb source unknown: 8 (*<1%*)
- Other: MD error! 30 (*3%*)

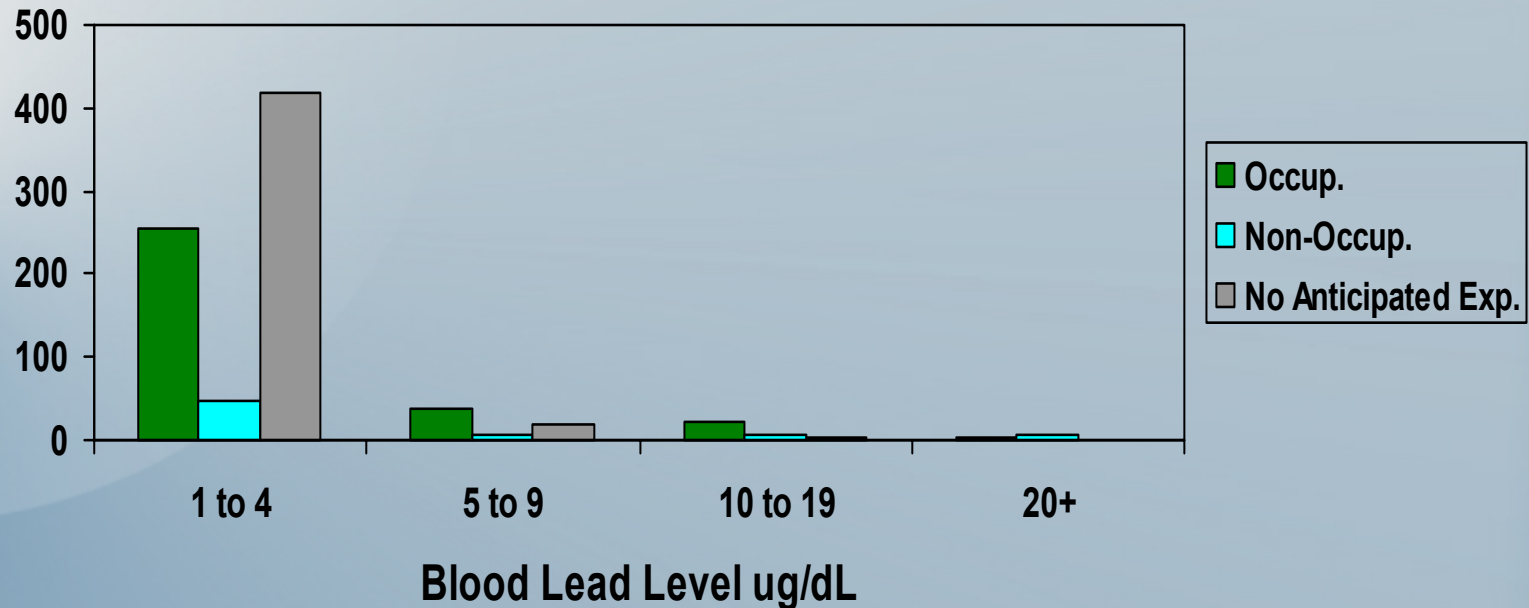
# Results III: Work-related or not?



- 39% of individuals we called on tested due to occupation
- 8% known/suspected non-occupational exposure
- 53% - no anticipated exposure



# Results IV: BLL by Reason for Test



- Even at low levels (under 5 ug/dL), many Occupational tests being done (32% of BLLs under 5 ug/dL Occupational)
- As BLL increases, larger % Occupational
- We will follow-up on tests drawn with No Anticipated Exposure that are above 4 ug/dL

# Results V: New employers? New industries?



- Industry distribution for results we called on during evaluation very similar to those not called on
- For 2006, industry distribution for 10+ ug/dL same as for 25+ ug/dL

# Lessons Learned

- 17% - reason for test remains unknown
- 8 FTE to call on all results
- Many BLL tests ordered w/ no anticipated exposure (6% of 2006 results)
- 36% 2006 CA BLLs occupational; 76% occ. results < 5 ug/dL
- Need employer information at all levels: can't prioritize based solely on BLL
- Can we pre-classify (lab, clinic) to streamline information gathering?
- No changes in industry distribution during or after calls; will monitor industry data

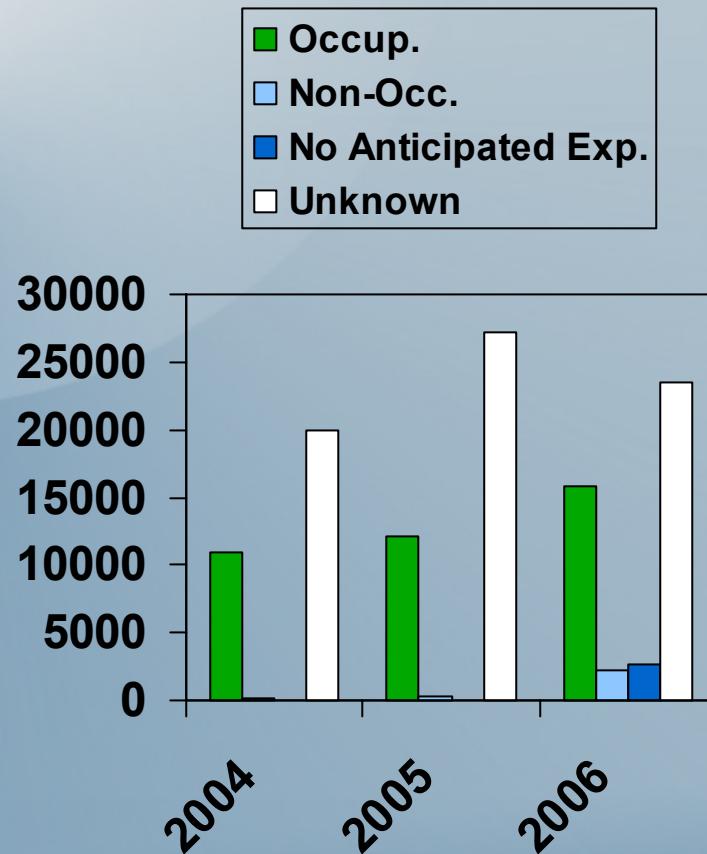
# How did OLPPP apply the lessons learned?



*Torch cutting during bridge dismantling*

- Hired 2 Research Assistants
- Lowered “calling level” from 20 to 10 ug/dL
- Applying rules for “pre-classifying” results so we can appropriately focus on occ. employers/industries
- Began outreach effort with analyzing laboratories
- Focusing on revising regulations to **require** employer information
- Will re-evaluate these changes at end of 2007

# Did the actions we took impact our surveillance data?



- Fewer results remain as “unknown” reason/source
- Aim: % unknown continues to decrease
- Occupational testing increases
- More appropriately focus our prevention efforts

# Was our evaluation effort worthwhile?



*Foundry workers pouring molten lead*

- More accurate data
- More meaningful data
- Closer to being able to fulfill public health goals
- Focus our efforts on a true solution (require employer)
- Meaningful for others?
- Interesting?