Moving Beyond ‘Silos’: Using Data & Collaboration to Protect Public Health

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Numerous Agencies Regulate Lead

- **DTSC**
  - Soil-Pb levels
  - Hazardous Waste

- **CA DPH**
  - Childhood Pb Branch
  - Occupational Pb Branch
  - Identifies EBLLs

- **CalOSHA**
  - Worker & workplace safety

- **SCAQMD**
  - Air Permits
  - On-site monitors

- **LA County DPH**
  - Conducts blood Pb screening
  - Review Pb poisoning ‘cases’
Information Collected

- Systematic collection of data
- Not used to public health surveillance
  - That is, the analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of lead poisoning prevention
  - Case management is not surveillance
- Minimal sharing of this information across agencies
  - Even less with the public
- Synthesis of this information could help in the identification of “bad actors” in the community
Blood Lead data

- Case definition out-of-line with current scientific evidence & CDC
  - State has been using $\geq15 \text{ug/dL}$ as definition of a “case”
  - This will change to $\geq 10 \text{ug/dL}$ later this year
  - CDC uses $\geq 5 \text{ug/dL}$

- Outdated reporting system
  - Labs should be required to report with a 1 ug/dL limit of quantification (that is, use state of the art technology)

- Data does not appear to be used for surveillance
  - Not routinely geocoded
  - Not shared

- Only children on public programs are required to be tested
  - May miss at-risk children
Blood Lead Data

- Important to visualize the information to communicate to broad audience
- Use of a binary variable => more difficult to recognize patterns
- Only represents one year of data
- Only a few census tracts in 1.7 mi area
  - More difficult to identify patterns
Use of Blood Lead Data

- **Recommendations**
  - Increase the years in the CDPH analysis
  - 2012 may not be “worst case”
  - Use 3 ug/dL as the cutpoint for comparison
  - Consider wind direction & risk isopleths
  - Restrict sample to children most at risk (<3 years old)
  - Need block-level resolution (too few census tracts in the 1.7 mile area)

Source: AQMD 2014
Soil Lead Data is Important

- Due to limitations in blood data, the soil data should guide cleanup and testing efforts
  - Soil Pb levels are more likely than blood to follow a distance decay pattern
- To date, have not seen any spatially refined soil data from DTSC (or LA DPH)
- Recommendations
  - Provide the data and a spatially-refined analysis of the testing results
  - Use this information to identify priority cleanup areas
  - Need investigation into the relationship between soil Pb and indoor dust Pb levels and whether cleanup impacts the indoor environment
Prevention is Key 1: Collaboration

- Need a Statewide Lead Task Force to develop methods for surveillance of Pb exposures in CA that includes environmental, public health and occupational agencies at the state and local level.
- Review best practices in other states
  - E.g., Some states require all children to have blood lead tests
- Improve methods to utilize and share information across departments
Prevention is Key 2: Workers

- Worker (and employers) BLLs should be used to identify potential community ‘hot spots’ for lead exposure
  - All labs should be reporting names/addresses of employers of workers’ blood lead data to the CDPH
  - CDPH should inform county health departments about problem companies and ensure that county checks on all children of workers with EBLLs
Prevention is Key 3: Protective Remediation

- Leverage resources to address multiple exposure pathways to lead in this community
- Assess indoor exposures and dust
  - Need for DTSC to ensure that cleanups are not impacting house interiors
- Assure cleanup workers are not bringing lead dust into their cars or homes
Thank you

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