Program Update

Scientific Guidance Panel Meeting
November 10, 2011
Sacramento, CA

Rupali Das, MD, MPH
Biomonitoring California
California Department of Public Health
Program Updates

1) Funding

2) Staffing

3) Pilot Projects
   • Maternal Infant Environmental Exposures Project
   • Firefighter Occupational Exposures Project
   • Biomonitoring Exposures Study

4) Other Activities

5) Coming Next
Funding Stable

- **Toxic Substances Control Account (TSCA)**
  - Funding maintained for 2010-2011 at $1.9 million

- **CDC Cooperative Agreement**
  - Year 3 of 5
  - Renewed for 2011-2012 at $2.6 million
CDC Cooperative Agreement

Objectives

1) Expand laboratory capability and capacity
2) Demonstrate success of laboratory quality management system
3) Apply biomonitoring methods to assess and track exposure trends
4) Assess exposures in a representative group of Californians
5) Collaborate with stakeholders, communities
CDC Cooperative Agreement
Award Recipients

• California, New York, Washington states

• State Biomonitoring Network
  • Quarterly telephone calls
  • First in-person meeting November 8-9, 2011
    – Berkeley and Richmond, CA

• Special guests in attendance today
  • Ken Aldous, PhD and staff (NY)
  • Blaine Rhodes and staff (WA)
  • Lovisa Romanoff, PhD and Antonia Calafat, PhD (CDC)
New Staff

• Sabrina Crispo-Smith, Ph.D.
  – Laboratory Scientist

• Laura Fenster, Ph.D.
  – Research Scientist

• Jeff Fowles, Ph.D.
  – Staff Toxicologist

• Anthony Zhou
  – Laboratory Assistant
Thanks For Your Contributions

• Frank Barley, Ph.D.
  – Research Scientist Supervisor

• Robert Ramage, Ph.D.
  – Research Scientist

• Josie Alvaran
  – Specimen Management Specialist

• Ngozi Erondu, MPH
  – CDC Public Health Prevention Specialist
Maternal and Infant Environmental Exposure Project (MIEEP)

Chemicals in Our Bodies Project
MIEEP

• Collaboration
  – UCSF
  – UC Berkeley

• Convenience sample
  – Mother-infant pairs recruited at SFGH
## MIEEP Status

<table>
<thead>
<tr>
<th>Recruitment</th>
<th>Collection</th>
<th>Data</th>
<th>Results</th>
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<tbody>
<tr>
<td>Recruit, enroll,</td>
<td>Maternal urine</td>
<td>Analyze samples</td>
<td>Return results (Two Phases)</td>
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<td>and consent participants</td>
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Firefighter Occupational Exposures (FOX)
FOX Project

• Collaboration
  — UC Irvine Center for Occupational and Environmental Health (COEH)
  — Orange County Fire Authority (OCFA)

• Convenience sample
  — Recruited at UC Irvine COEH Clinic during wellness and fitness evaluations

• 101 firefighters enrolled
# FOX Status

<table>
<thead>
<tr>
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<td>Fire station checklist</td>
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## FOX Data Sources

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<tr>
<th>University of California, Irvine</th>
<th>Informed Consent</th>
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<td>Fire Station</td>
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<td>Orange County Fire Authority</td>
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<td>Biomonitoring CA Laboratories</td>
<td>Sample Processing Information</td>
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FOX Data Management

Data Entry
- Entered data from all sources for 101 participants
- 100% double data entry for questionnaires

Quality Control
- Check accuracy and precision of data entry
- Logic checks/validate responses

Data Merge
- Link data from different sources to create a full dataset
- Check consistency of variables from different source
Environmental Sampling Update

• Dust sample collection completed
  – 27 samples from 20 fire stations

• Analyses in progress for:
  • Polybrominated diphenyl ethers (PBDEs)
  • Polycyclic aromatic hydrocarbons (PAHs)
  • Polychlorinated biphenyls (PCBs)
Biomonitoring Exposures Study (BEST)

A collaboration with Kaiser Permanente Northern California (KPNC), Research Program on Genes, Environment, and Health (RPGEH)
BEST

Stratified random sample
  • Adult KPNC members
  • Seven California Central Valley counties *
  • Goal: 100 participants

*Fresno, Madera, Merced, Sacramento, San Joaquin, Stanislaus, Yolo
# BEST Status

<table>
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<tr>
<td>Recruit participants from random sample</td>
<td>Blood and urine</td>
<td>Data entry</td>
<td>Return results (Two rounds)</td>
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<tr>
<td>Arrange for visit</td>
<td>Exposure assessment questionnaire</td>
<td>Analyze samples</td>
<td>Evaluation survey</td>
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<td>Consent &amp; enroll participant at visit</td>
<td>Abstract medical records</td>
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Other Activities

• Chemical selection
  – Developing potential designated document for non-halogenated aromatic organophosphate flame retardants
  – Continuing to screen candidates for potential designation (e.g., pesticides)

• Public involvement
  – Finalizing Public Involvement Plan
  – Working on new ways to reach stakeholders

• Biomonitoring California Website revision
  – Revising structure, look, content
  – User-friendly interface, improved readability, increased relevance for general audience
Coming Next

• Return results to participants—MIEEP & FOX
• Issue Request for Information (RFI) for analysis of archived California samples
• Plan next phase of BEST
• Submit Report to the Legislature – Due January 2012
Thank you!

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<th>Josephine Alvaran</th>
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Acknowledgments

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  – Asa Bradman
  – Dwight Culver
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  – Tom Moon
  – Peter Condy

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  – Carrie Dickenson
  – Jackie Schwartz
  – Tracey Woodruff

• UC Berkeley:
  – Rachel Morello-Frosch
  – Holly Brown-Williams

• UC Irvine
  – Leslie Israel
  – Cristy Fan

• Kaiser RPGEH
  – Stephen VanDenEeden
  – Amethyst Leimpeter