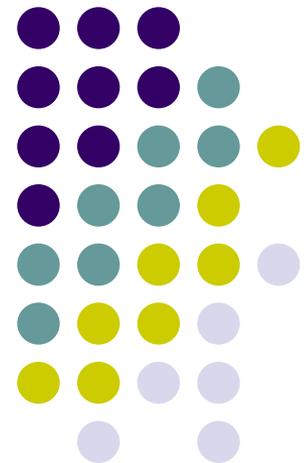


Update on CECBP Activities

Rupali Das, MD, MPH
California Department of Public Health

California Environmental Contaminant
Biomonitoring Program (CECBP)
Scientific Guidance Panel Meeting

February 9, 2010
Sacramento, California





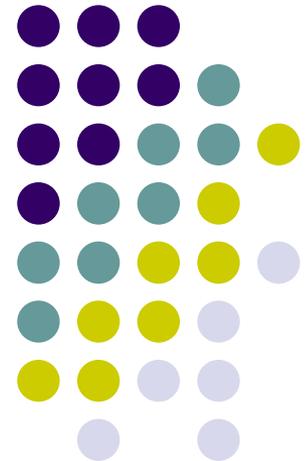
Overview

- CECBP's public name
- Staff changes
- Program goals
- State funding status
- CDC cooperative agreement
- Progress toward CDC cooperative agreement objectives



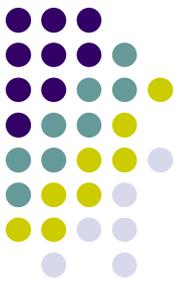
Biomonitoring California

California Environmental
Contaminant Biomonitoring
Program

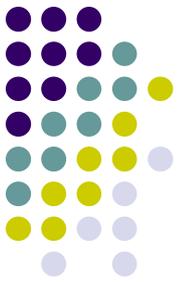




Newly Hired Staff: CDC Cooperative Agreement

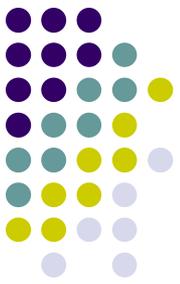


- Shirley Cao, Quality Management Coordinator
- Yangzhu Long, Specimen Management Specialist
- Indranil Sen, Environmental Laboratory Scientist
- Josephine Alvaran, Laboratory Scientist
- *To be hired: Laboratory Information Management System Specialist; two additional Environmental Laboratory Scientists*



State Staff Changes

- Research Scientist II (CDPH)
- Kristin Gottschalk, Research Scientist I (OEHHA)

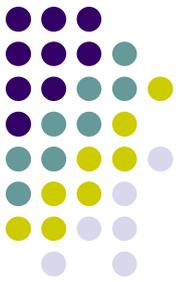


Biomonitoring California Goals

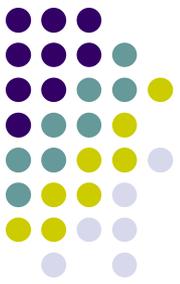
- Program goals:
 - Determine levels of environmental chemicals in a representative sample of Californians;
 - Establish trends in the levels of these chemicals over time;
 - Assess effectiveness of public health efforts and regulatory programs to reduce Californians' exposures to chemicals.
- The Program is committed to providing opportunities for meaningful public participation through activities and materials that are understandable and sensitive to the diverse needs of Californians.



State Funding Status



- Base level funding (\$1.9 million) for 3 departments
- Toxic Substances Control Account (TSCA)
 - Funding maintained for 2009—2010
 - Funding anticipated to be maintained for 2010—2011
- State funded positions: 13 full-time equivalent (FTE)
- In-kind contributions
 - State staff ~4 FTE
 - Fellows:
 - Association of Public Health Laboratories
 - Council of State and Territorial Epidemiologists
 - CDC Public Health Prevention Specialist
- Workload adjustments: mandatory furloughs, due to end June 2010

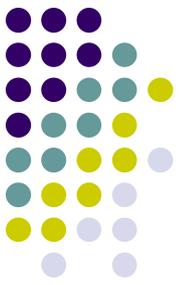


CDC Cooperative Agreement

- 5-year cooperative agreement
- \$2.6 million to CA for first year
- September 1, 2009 start date
- Continuing application due Spring 2010
- Mark Davis, CDC Program Officer



CDC Cooperative Agreement: Objectives



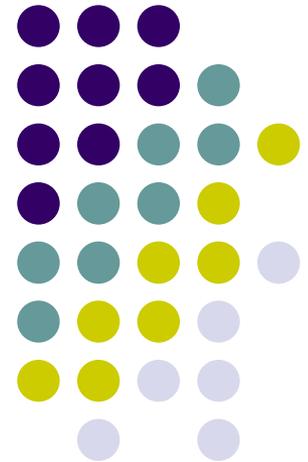
- 1) Expand laboratory capability and capacity
- 2) Demonstrate success of laboratory quality management system
- 3) Apply biomonitoring methods to assess and track exposure trends
- 4) Assess exposures in a representative group of Californians
- 5) Collaborate with stakeholders, communities

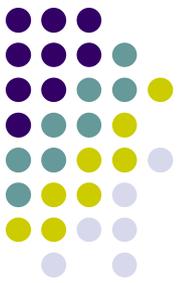


Objectives 1 & 2

Expand laboratory capability and capacity

Demonstrate success of laboratory quality management system





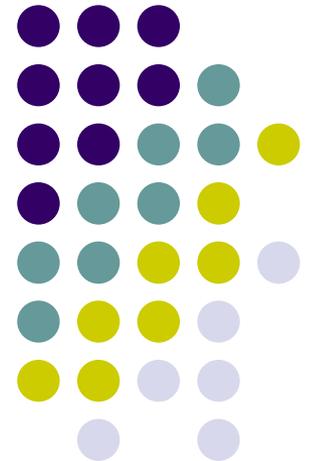
Laboratory method development

- Currently developing methods for
 - Pesticides (chlorpyrifos, pyrethroids)
 - Bisphenol A
 - Phthalates
 - Polycyclic Aromatic Hydrocarbons (PAHs)
 - Metals
 - Perfluorinated chemicals (PFCs)
 - Flame retardants
- Biomarkers for diesel exposure
 - Discussed at SGP meeting October 2009
 - Identifying appropriate biomarker poses challenge
 - Will be addressed at future meeting



Objective 3

Apply biomonitoring methods to
assess and track exposure
trends





Assess and track exposure trends

1. Environmental Health Tracking

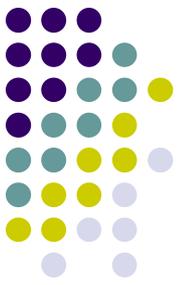


- Tulare - Organophosphate pesticides
 - Chlorpyrifos, results not yet available
 - Will return in Summer 2010
- Imperial - Perchlorate and metals
 - Collected urine, food, and water samples
 - Lab analysis on perchlorate, thiocyanate, nitrate, and iodine in urine
 - Analyzed perchlorate in food and water samples
- Additional collaborations to be defined



Assess and track exposure trends

2. CYGNET



Cohort of Young Girls' Nutrition, Environment, and Transitions

- Environmental, genetic, other factors during onset of female puberty as breast cancer risks
- Baseline blood and urine collected in 2005
 - > 400 girls (6-8 yrs) in SF Bay Area
- Whole blood and urine samples from baseline cohort
 - ~ 350 available now
 - Subsequent urine samples available over time
- Current analytes of interest – metals in blood
- Memorandum of Understanding completed



Assess and track exposure trends

3. Maternal and Infant Environmental Exposure Project (MIEEP)

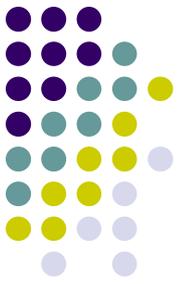


- Measure and compare levels of chemicals in pregnant women and newborn infants
 - Recruit pregnant women at San Francisco General Hospital
 - Collect biological samples:
 - Blood and urine from ~100 pregnant women
 - Newborn umbilical cord blood samples
 - Analyze selected chemicals at Biomonitoring California labs



Assess and track exposure trends

4. Firefighter Exposures

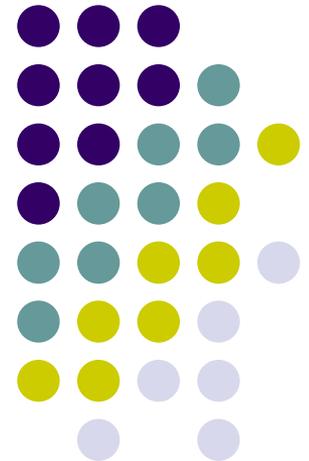


- Exploring collaboration with Contra Costa County
 - Fire department physician, Unions, Management
- Pilot study of 50 firefighters
- Measure analytes in blood and urine
 - Flame retardants (PBDEs)
 - Perfluorinated compounds (PFCs)
 - Polycyclic aromatic hydrocarbons (PAHs)
 - Metals (Pb, Hg, As, Cd)
 - Pesticides (chlorpyrifos, pyrethroids)
- Environmental sampling in select firehouses
 - Flame retardants, PFCs



Objective 4

Assess exposures in a
representative group of
Californians





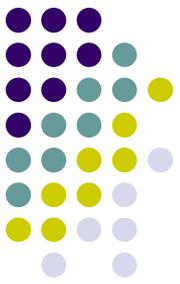
Assess Exposures in a Representative Group of Californians



- Explore feasibility of accessing stored biospecimens collected statewide or regionally
 - Utility of biospecimens for chemical analysis
 - Costs to obtain and analyze
 - Appropriate sampling strategies



Assess Exposures in Californians Exploring Collaborations



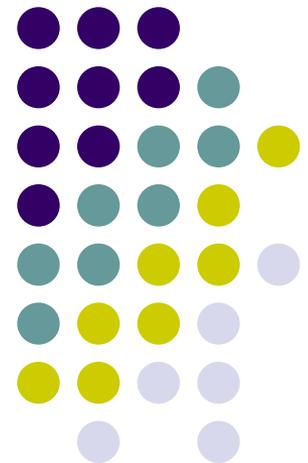
- Genetics Disease Branch, CDPH
 - Maternal serum, newborn screening blood spots

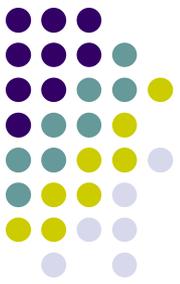
- Kaiser Research Program on Genes, Environment, and Health
 - Biobank repository
 - New specimen collection



Objective 5

Collaborate with stakeholders,
communities





Engage and Collaborate With Stakeholders and Communities

- Contract with Health Research for Action, UC Berkeley School of Public Health
 - Targeted investigations and results communication
 - Biomonitoring primer brochure (July 2010)
 - Provide consultation for CECBP website and posting of the biomonitoring primer



CDC Cooperative Agreement Summary



- Laboratory analysis of urine and blood
- Collaborations
 - Environmental Health Tracking Program
 - CYGNET
 - MIEEP
 - Firefighter exposures
 - Archived biospecimens
- Results communication and outreach

Questions?

