

Laboratory Program Update

Peter Flessel, PhD

California Department of Public Health

Myrto Petreas, PhD, MPH

Cal/EPA Department of Toxic Substances Control

California Environmental Contaminants Biomonitoring Program
Scientific Guidance Panel Meeting

June 10, 2008
Oakland, California

Two State Labs with Different Testing Functions

- CDPH Lab focus on metals and non-persistent organics (organic chemicals that leave the body quickly).
 - Test mostly chemicals in urine
 - Test some metals in blood.
 - Process and archive samples.
- DTSC Lab focus on persistent organics (organic chemicals that accumulate in the body).
 - Test mostly chemicals in blood/serum

Recent Activities

- Staff: Hired 4.5 in CDPH, 2 in DTSC.
- Lab Remodel: Accommodate equipment in CDPH (Summer completion).
- Equipment: Both labs procuring testing equipment (Summer-Fall deliveries).
- Lab Working Group: On-going meetings.
- CDC Lab Visit: Three days in March 08, developing MOU to help CECBP.
- IRB: Submitted materials to permit pilot testing lab components.

Lab Challenges

- No operating funds (for chemicals, standards, solvents, glassware etc.) in CDPH lab budget after July, 2008.
- DTSC lab staff below critical mass so difficult to sustain and fuel further progress.

Report to SGP on Sample Testing by Labs under Two Scenarios

- What could labs do with only current resources?
- What could labs do with resources proposed for the fully funded program?

When CECBP is launched (2012?)

	Current Funding		Full Funding	
	CDPH	DTSC	CDPH	DTSC
Total Lab Staff	3.5	2	13	11
Total Equipment (One-time)	\$1.3M	\$1.2M	\$3M	\$3M
Testing Capabilities (Examples)	Metals OPs Phthalates	PFCs	Metals with speciation OPs Phthalates Perchlorate PAHs, BPA Other Organics	PFCs PBDEs OCPs PCBs Phenols, OH-Metabolites Other POPs
Participants' Multispecimen Management Capacity	Limited Processing, Shipping and Archiving	Limited CDPH Specimen Management limits testing	Comprehensive Processing, Shipping and Archiving	Specimen Management Does Not Limit Testing
Overall Capacities	~500 participants/2yr	~500 participants/2yr	~2000-3000 participants/2yr	~2000-3000 participants/2yr

Summary

- Progress in hiring, renovating lab, buying equipment.
- Barriers to progress - CDPH lab lacks operating funds, DTSC lacks staff.
- Current resources allow testing for very limited set of chemicals in small number of participants, number limited by sample management.
- Full program funding greatly increases by 4-6 fold the number of chemicals tested and number of participants per two year cycle.