

# Laboratory Capacity

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# Our Scientists

## CDPH EHLB

### Biomonitoring Staff



# Our Equipment



Sample Preparation



ICP/MS - Metals  
Testing



Hi Sensitivity  
LC-MS/MS -  
Organics Testing

# Numbers of Samples That We Could Analyze with Base Funding, Assuming Minimal Sample Management\*

<u>Sample</u>	<u>No./Yr.</u>
Whole blood	1000
Serum	1000
Urine	1000

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\*Only receive, log, test & report.

# Best Case Lab Capacity with Base \$

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## Metals in CDPH Lab\*

Able to do...

Tests (in Whole Blood)	When	No./Yr.
Pb, Cd, Hg	Jan 09	1000
add As	Mar 09	1000
and One of Following:		
Speciated Hg	Oct 09	400
or		
Speciated As	Oct 09	400



# Best Case Lab Capacity with Base \$

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## Organics in CDPH Lab\*

Able to do two of the following...

Tests (in Urine)	When?	No./Yr.
OP pesticides	May 09	1000
Phthalates/BPA	Oct 09	1000
PAH panel	Oct 09	1000

\*Assuming minimal sample management.

# DTSC Staff



# DTSC Equipment



High Resolution GC/MS



# Current DTSC Activities Feed into CECBP Implementation

- On-going studies of persistent organic pollutants in human serum; 500 samples/yr; 2+ staff
  - OCPs, PCBs, PBDEs
- Method development for new brominated flame retardants
- Wildlife samples (serum, eggs, adipose) provide testing material
- Standard operating procedures revised to conform with Clinical Laboratory Improvement Amendments (CLIA) requirements

# DTSC Timetable for CECBP

- Dec 2008: Set up and training on HRGC/MS
- Feb 2009: Set up and training on LC/MS
- Jan-Apr 2009: Set up and optimize automated sample preparation systems
- Apr 2009: Staff training at CDC
- May 2009: Start using new system for POPs
  - Goal: Develop capacity for 800 samples/yr (PCBs, PBDEs, OCPs, some new BFRs) by Oct 2009

# Best Case Lab Capacity with Base \$

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## Organics in DTSC Lab

Able to do ONE of the following...

Tests (in Serum)	When?	No./Yr.
POPs (PCBs, PBDES, OCPs, some new BFRs)	Oct 09	800
OR		
Perfluorinated chemicals	Oct 09	1000

# CECBP Lab Capacity Summary

- Initial staff on-board and equipment arriving
- **Caution:** After warranty, equipment repairs will be costly.
- Need operating expenses & staff, must leverage base \$ by working with external partners.
- Collaborations via RFI provide samples with no/low collection-management costs.
- Once methods up, labs can focus resources on analyzing samples and providing results sooner.