

Report to Scientific Guidance Panel:

CDPH

Environmental Health Laboratory Update

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Environmental Health
Laboratory CDPH

Sacramento, February 9, 2010

Update overview

- New staff and training
- Lab set up and method development
- Quality control & Quality assessment
- Collaborations

New Cooperative Agreement Staff

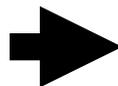
- Shirley Cao, Quality Management
- Yangzhu Long, CLS, Specimen Management
- Dr. Indranil Sen, Laboratory Scientist
- Josephine Alvaran, Laboratory Scientist
- Two more Laboratory Scientists will be hired
- One Laboratory Information Management Specialist to be hired

Training

- At Centers for Disease Control:
 - Maintaining quality management system, method specific quality control, statistical control procedures
 - Biorepository, sample & standard handling and materials screening
 - Method development
- In-house training:
 - Instrument operations
 - LIMS
 - EHL QA and sample handling procedure

Lab set up

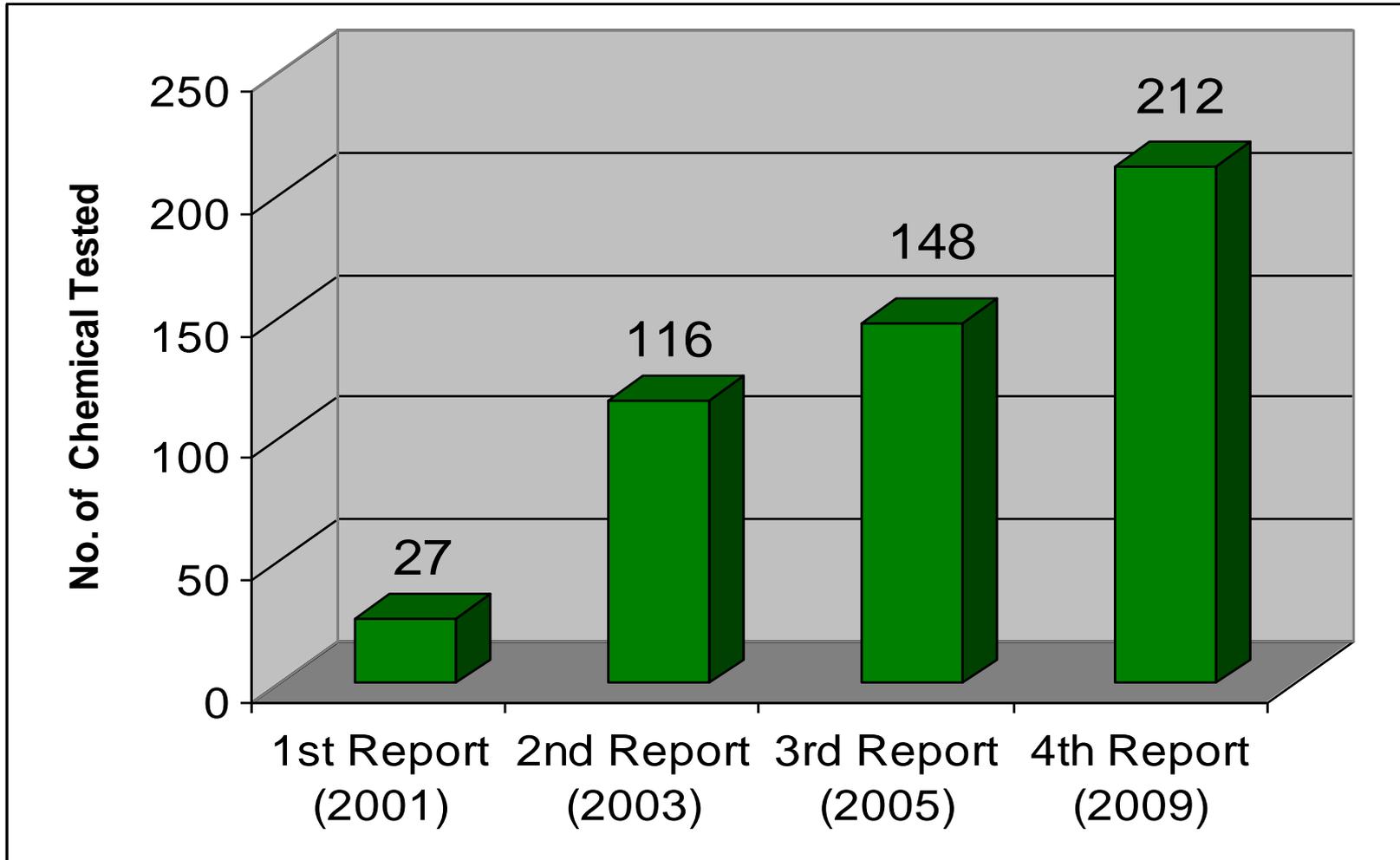
- Currently expanding into 2 new laboratories



Established an organic lab from an empty space, 2007-08

- In the process of purchasing GC-MS/MS, LC-MS/MS, and IC-MS instrumentation

Chemicals monitored by CDC



Methods Development

<i>Completed Methods</i>		<i>In Progress</i>	<i>Under Development</i>
TCPy and 3-PBA	Blood metal panel	Four Phthalate Metabolites	PAH metabolite
<ul style="list-style-type: none"> ▪ Validation: 20 batches ▪ Method is ready 	<ul style="list-style-type: none"> ▪ Validation: 20 batches ▪ Method is ready 	<ul style="list-style-type: none"> ▪ Validation: 13 batches ▪ Method ready in April 2010 	<ul style="list-style-type: none"> ▪ Will collect method validation data ▪ Method ready in May 2010

QC and Quality Assessment

- **Internal QC Performance Monitoring**

Three levels of QC

- **External QC Performance Assessment**

G-EQUAS (The German External Quality Assessment Scheme)

- **Proficiency Tests**

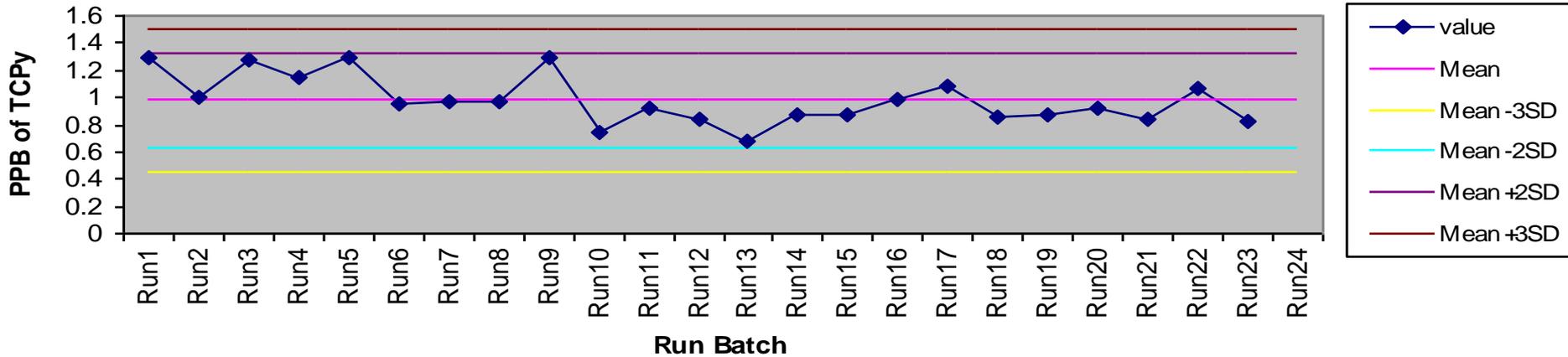
CDC PT program and NYS

- **Inter-Laboratory Validation**

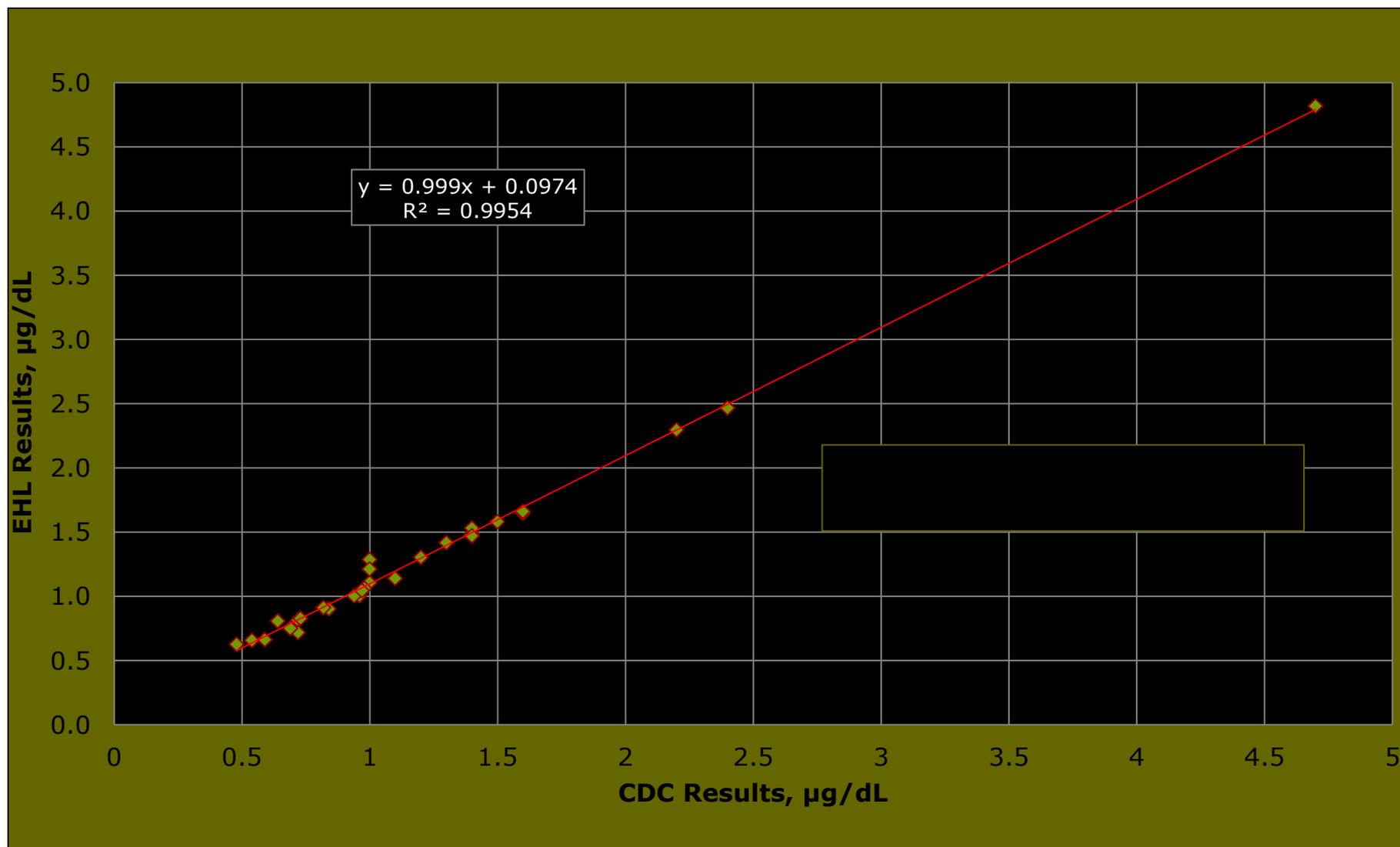
CDC and NYS

Internal QC material characterization

QCL-TCPy in Urine



Quality assessment by method comparison



Pilot Specimens (30 samples) for Kaiser Permanente
CYGNET Study

Collaborations on biomonitoring studies

- Tracking Biodrift II: 77 urine samples analyzed from Tulare county for TCPy
- CYGNET Study: 30 pilot Specimens analyzed for lead, cadmium, and mercury
- Memoranda of Understanding with CHAMACOS and CYGNET