

California Environmental Contaminant Biomonitoring Program (CECBP)



Background

The California Environmental Contaminant Biomonitoring Program (CECBP) was authorized by Senate Bill (SB) 1379 (Perata, Chapter 599, Statutes of 2006).

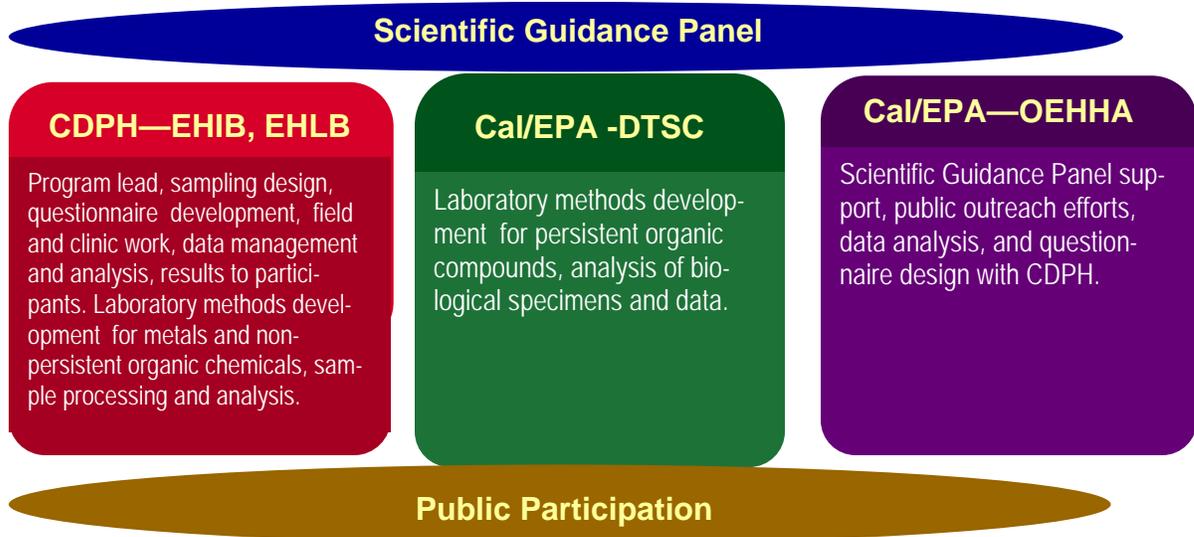
The CECBP will provide for the systematic collection and chemical analysis of human biological specimens, such as blood and urine, in a representative sample of Californians.

CECBP represents a collaboration of the California Department of Public Health, the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Toxic Substances Control (DTSC). SB 1379 designates CDPH as the lead entity. Since the Governor signed the bill in September 2006, staff and mid-level managers from all three departments have been meeting regularly to lay out broad issues to be addressed in 2007-08 under different budget scenarios. In addition, during the past six months CDPH staff members have held bi-monthly conference calls with staff and management of the U.S. Centers for Disease Control and Prevention (CDC) regarding CECBP implementation. The 2007-08 Budget includes \$5.2 million for the CECBP: \$3.2 million to CDPH, \$0.38 million to OEHHA, and \$1.6 million to DTSC.

Program Goals

- Determine baseline levels of environmental contaminants in a representative sample of Californians.
- Establish temporal trends in contaminant levels.
- Assess effectiveness of public health efforts and regulatory programs to reduce exposures of Californians to specific chemical contaminants.

Program Components



Program Elements

A representative sample of Californians will be selected using a methodology similar to that used by CDC in the National Health and Nutrition Examination Survey (NHANES). While the federal biomonitoring laboratory program has been “piggybacked” on samples obtained in NHANES, California will have to create a biomonitoring sampling and field operations infrastructure as well as laboratory systems.

CDPH will contract with CDC to provide technical assistance in multiple areas, including sample design, field

protocols, and laboratory methods. CDPH will also contract with UC Berkeley’s Survey Research Center for the sampling design.

There will be 2000+ participants recruited per two-year sampling cycle, who should reflect the “age, economic, racial, and ethnic composition of the state.”

CDPH, Environmental Health Investigations Branch (EHIB) has primary responsibility for sample design, questionnaire development, field operations, data management and analysis, and reporting results.

Data Collection and Analysis

Data to be obtained from CECBP participants will include:

1. Questionnaires on demographics, health status and history, diet, occupation, potential exposures of interest, and other variables
2. Anthropometric measurements (e.g., height, weight, waist and hip size)
3. Physiological measurements (blood pressure, spirometry, and others)
4. Samples of blood and urine and possibly other biological specimens.

Biological specimens will be sent to CDPH Environmental Health Laboratory Branch (EHLB), where samples will be split, with some aliquots to be archived onsite and the rest to be analyzed at:

- ◇ EHLB – metals and nonpersistent organic chemicals;
- ◇ DTSC Environmental Chemistry Laboratory – persistent organic compounds;
- ◇ Commercial laboratories – certain clinical tests, such as lipid panels (needed to interpret blood analyses of fat-soluble chemicals).

Scientific Guidance Panel Members

Asa Bradman, Ph.D.

Associate Director, Center for Children's Environmental Health Research, School of Public Health, UC Berkeley, and Co-Principal Investigator, Center for Health Assessment of Mothers and Children of Salinas

Dwight Culver, M.D.

Clinical Professor of Medicine, School of Medicine, Epidemiology Department, UC Irvine

Richard Jackson, M.D., M.P.H.

Adjunct Professor, Division of Environmental Health Sciences and Health Policy and Management, UC Berkeley, School of Public Health, and Adjunct Professor, City and Regional Planning, College of Environmental Design, UC Berkeley

Marion Kavanaugh-Lynch, M.D., M.P.H.

Director, University of California Breast Cancer Research Program, UC Office of the President

Ulrike Luderer, M.D., M.P.H.

Associate Professor, School of Medicine, Division of Occupational and Environmental Medicine, UC Irvine

Thomas McKone, Ph.D.

Adjunct Professor, School of Public Health, UC Berkeley, and Senior Scientist, Environmental Technologies Division, Lawrence Berkeley National Laboratory

Edward Moreno, M.D.

Director, Department of Community Health, and Health Officer, Fresno County

Gina Solomon, M.D., M.P.H.

Associate Clinical Professor of Medicine, and Associate Director, Pediatric Environmental Health Specialty Unit, UCSF, and Senior Scientist, Natural Resources Defense Council

Michael Wilson, Ph.D., M.P.H.

Assistant Research Scientist, Center for Occupational and Environmental Health (COEH), UC Berkeley

Scientific Guidance Panel

The Scientific Guidance Panel (SGP) provides scientific peer review and recommendations on program design and implementation, including chemicals to be analyzed in human biological specimens. The SGP includes nine members, five of whom were appointed by the Governor and four by the Legislature. OEHHA convenes and provides staff support for the SGP, which will meet at least three times per year. The first SGP meeting will take place on December 17, 2007, 9:30 - 5:00. Sacramento City Hall Auditorium, 1000 I Street, Sacramento. For more information please contact 510-622-3200, or visit <http://www.oehha.ca.gov/multimedia/biomon>.