Introduction to biomonitoring and example projects

Presentation to the Community Advisory Council for the
Bay Area Air Quality Management District
March 30, 2022

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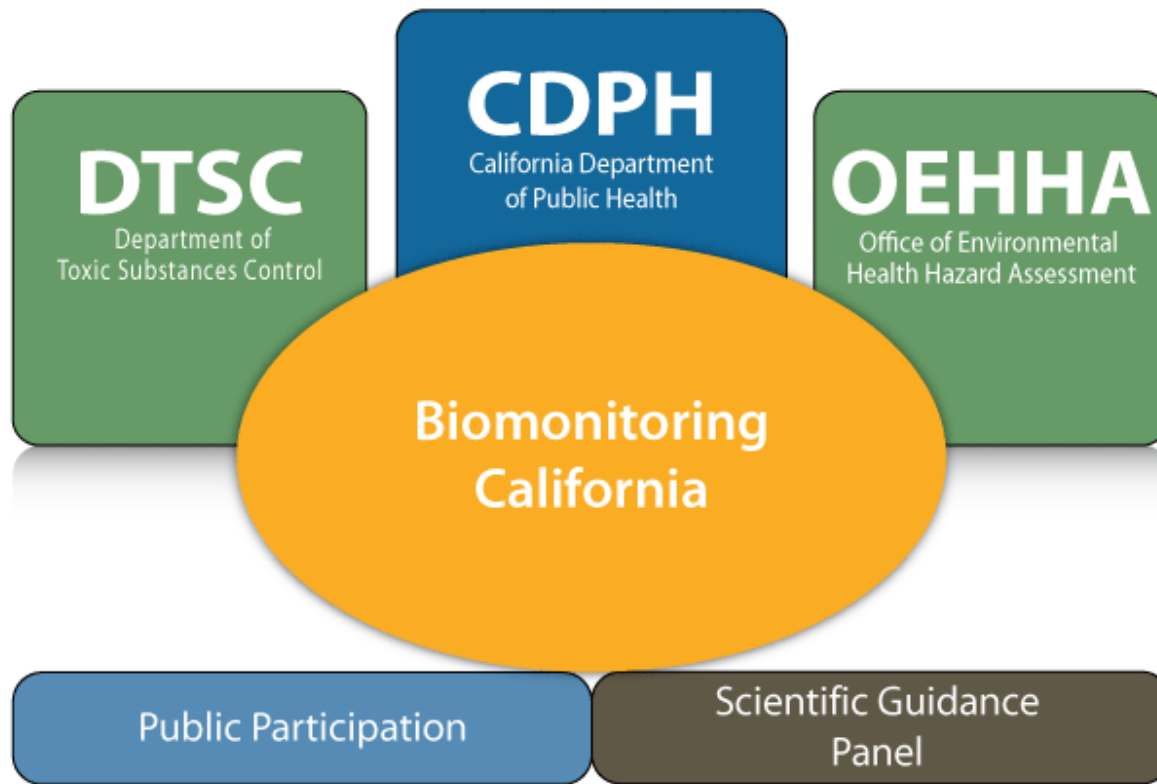California Environmental Protection Agency

What is biomonitoring?

Biomonitoring is a way to measure chemicals in a person's body, usually by analyzing blood or urine samples.

It tells us about chemical exposures from all types of sources, including air, water, dust, food, and consumer products.

Photo credit: pxfuel.com

Biomonitoring California

[Program website](#)

Why is biomonitoring useful?

- Provides a measure of total exposure to chemicals of concern

- Can be used to track exposures over time

- Helps identify highly exposed communities

- Supports evaluation of regulatory and other efforts to reduce harmful chemical exposures

- Empowers individuals to learn about their chemical exposures and take action

Types of projects and example findings

- Statewide surveillance to measure and track chemical exposures in Californians
- Studies of vulnerable populations
    - Higher levels of flame retardants were found in infants compared to their mothers
    - Elevated levels of benzophenone-3 and various persistent chemicals were found in Southern California firefighters
    - Asian/Pacific Islanders had higher levels of some metals and fluorinated compounds
- Studies to find out how specific actions can reduce exposures
    - Latina teens who switched to lower-chemical cosmetics and personal care products had reduced exposures
    - Households that replaced foam/couches showed decreases in levels of some flame retardants

East Bay Diesel Exposure Project (EBDEP)

Thank you to our community partner

West Oakland Environmental Indicators Project

EBDEP webpage

EBDEP overview

Study elements:

- 40 families participated - one parent and one child (2-10 years old)
- Measured chemicals from diesel exhaust in urine, indoor air, and house dust

Main goals:

- Use biomonitoring and environmental monitoring results to increase understanding of diesel exhaust exposures:
  - Within a household
  - Over time
  - Between communities
- Evaluate local sources and other factors that lead to higher diesel exhaust exposures
- Share study findings with communities and policy makers

EBDEP - What have we learned so far?

- There is widespread exposure to diesel exhaust chemicals in the East Bay

- The biomonitoring results indicated:

  - Higher diesel exhaust exposures in parents compared with their children

  - Higher exposures in fall and winter months compared with spring

- On average, EBDEP participants had higher levels of diesel exhaust chemicals than participants in the California Regional Exposure Study in Los Angeles (CARE-LA)

Stockton Air Pollution Exposure Project (SAPEP)

Thank you to our community partners

LittleManila RISING

ALL SAINTS ACADEMY OF STOCKTON

SAPEP webpage

Stockton Air Pollution Exposure Project (SAPEP)

Learn more about air pollution exposures to schoolchildren in Stockton

Evaluate effectiveness of school air filtration at reducing children's air pollution exposures

Stockton Air Pollution Exposure Project (SAPEP)

- **Enrolled students from All Saints Academy of Stockton**

- **Measured air pollutant levels inside and outside of the school**

- **Installed standalone air filtration units in ~ half the classrooms of participating students**

- **Parents completed online questionnaires**

- **Collected children's urine before and after school**

- **Measured chemicals that indicate exposure to air pollution**

What's next

- Proposed FY 22-23 state budget includes on-going funding for community biomonitoring studies

- Currently planning:

  o How best to build on community input regarding biomonitoring priorities

  o Ways to engage with communities on choosing locations and designing new studies

- Following up on input from public discussion at March 25 Scientific Guidance Panel meeting – recording will be posted

- Send us ideas anytime to biomonitoring@oehha.ca.gov

Vote on Structure, Governance, and Workplan

Community Advisory Council Meeting
March 30, 2022

Suma Peesapati
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Requested Action

Vote on
1. Leadership Structure
2. Type of Governance Document
3. Creation of an ad-hoc committee to develop workplan and governance document

Leadership Structure

- A leadership structure fosters accountability, facilitates decision-making, and enhances collaboration.

- Leadership duties could include:
  - Open, manage, and adjourn meetings
  - Establish meeting agendas

- Examples of leadership models include:
  - Chair/Vice-Chair
  - Chair and other Officers (as needed)
  - Two Co-Chairs

Chair & Vice-Chair Model

The Chair & Vice-Chair structure is a traditional leadership structure and gives greater authority and responsibility to the Chair:

- Chair – Manages council meetings, provides leadership, and guides the council so that it accomplishes it goals.

- Vice Chair – Supports the Chair in performing their duties and steps in when the Chair is unavailable.

Chair and Officers Model

The Chair and Officer model is a variation of the traditional Chair/Vice-Chair model that includes a Secretary and Treasurer. However, the council is not limited to those roles alone.

Two Co-Chair Model

Two Co-Chairs – Two individuals share the duties and responsibilities of the traditional Chair role.

- In this model, both Co-Chairs work together to decide who takes what responsibility for each meeting.
- Having two Co-Chairs can help conserve each Co-Chair's time since it doesn't place all the responsibility on a single person.

Council Governance Document

- A council governance document establishes the governing rules of the Community Advisory Council

- Council governance could include information on:

  - Membership
  - Mission
  - Quorum

  - Terms
  - Voting
  - Communication

- Examples of council governance documents:
  - A Charter
  - Bylaws

Council Charter

- A Council **Charter** is a formal document on why the Council exists and how it will operate. A charter can contain how frequently the council meets, member roles/responsibilities, membership criteria, and membership terms.

- An example of a Council Charter:
  - Richmond-San Pablo Steering Committee Charter

Council Bylaws

- **Bylaws** guide the council's actions and decisions. They are helpful in preventing or resolving conflicts and disagreements. They can also protect the council from potential problems by clearly outlining rules around authority, duties, and expectations. They can include elements like membership, quorum, terms, etc.

- An example of Council Bylaws:
    - San Joaquin Valley Air District EJ Advisory Group Charter

Council Workplan

- A workplan establishes the priorities and topics the CAC addresses over the next year.

- The CAC's 2022 workplan may include (but is not limited to):
  o Air District Environmental Justice Policy
  o Community Benefits Fund
  o Compliance and Enforcement
  o Permitting
  o Others

- An example of a workplan:
  o Stationary Source and Climate Impacts Committee Workplan

Requested Actions

1. Vote on the type of leadership structure
   - Chair & Vice Chair
   - Chair & Officers
   - Co-Chairs

2. Vote on the type of governance document
   - Charter
   - Bylaws

3. Vote on the creation of an ad-hoc committee to develop workplan and governance document

Public Comment

Questions?

Election of Community Advisory Council Leadership

Community Advisory Council Meeting
March 30, 2022

Suma Peesapati
Environmental Justice and Community Engagement Officer
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Requested Action

- Election of the Community Advisory Council leadership

Possible Responsibilities

- Open, manage, and adjourn meetings, as well as setting the order of speakers

- Meet with Air District staff to develop agendas

- Work with Facilitator to structure and coordinate CAC meetings

- Attend and provide updates to the Board of Directors (as needed)

- Attend the Ad Hoc meetings (as needed)

Statements from Candidates

- Latasha Washington

- J. Kevin Jefferson III

Election

Results