

# Evaluation of Results Return Materials from the Biomonitoring Component of the San Joaquin Valley Pollution and Health Environmental Research (BiomSPHERE) Study

November 7, 2024
Biomonitoring California
Scientific Guidance Panel Meeting

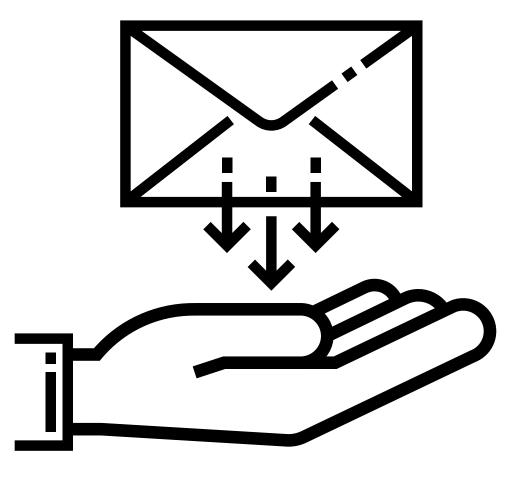
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Biomonitoring California

Office of Environmental Health Hazard Assessment

## Biomonitoring California's Mandate to Return Results to Study Participants

- Statutory requirement to return biomonitoring results to study participants who request them (Health & Safety Code Section 105443)
- Provide materials to help participants understand their results
- Tailor materials to participant audience
  - Culturally and linguistically appropriate



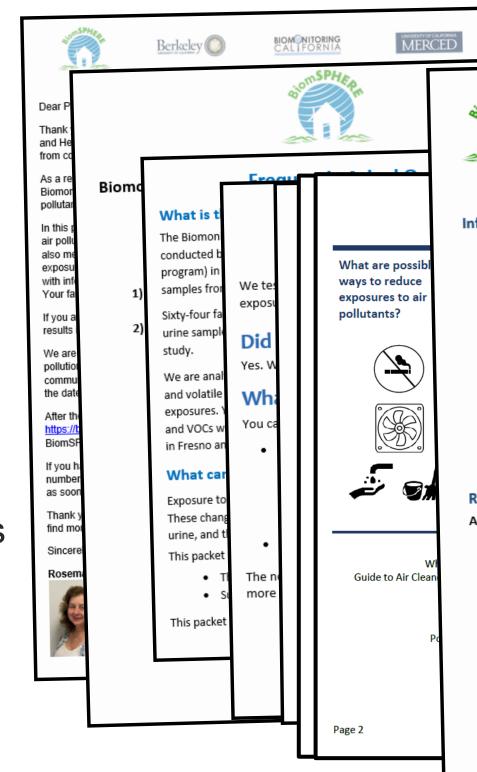
### Results Return: Behind the Scenes

- Conduct QA/QC on data
- Analyze final data set for summary statistics
- Create draft text and results tables with comparison data
- Internal and PI review
- Submit draft packet to IRB
- Update tables with personalized results
- Package all materials into one PDF
- Distribute final packets



## Results Return Packets

- Cover letter
- Table of contents
- Project description
- Results table
- Informational chemical fact sheets
- Community resources
- Glossary





## San Joaquin Valley Air Quality Resources



Also available at: https://biomonitoring.ca.gov/san-joaquin-valley-air-quality-resources

#### Information on air quality and pollution sources

- <u>San Joaquin Valley Air District Air Quality Information</u> links to air quality data and related information, including the <u>Real-Time Air Advisory Network (RAAN)</u>, with tools to inform Valley residents about local air quality:
  - Online, 24/7 access to the most up-to-date hourly air quality information for your area of the Valley
  - Automated email or text notifications when air quality is poor in your area; <u>SIGN UP HERE</u>
  - Specific health guidelines for outdoor exercise based on 5 different air quality levels
- PurpleAir data maps for <u>Stockton</u> and <u>Fresno</u> local air monitoring of particulate matter (PM) pollution
- <u>AirNow</u> official US Air Quality Index (AQI) data and related resources. An interactive map shows your local AQI, and <u>A Guide to Air Quality and Your Health</u> explains simple steps to reduce your exposure to unhealthy air
- <u>California Air Resources Board (CARB) Facility Search Engine</u> tool to look up information about specific California facilities, such as power plants and oil refineries, that may cause air pollution

#### Resources to improve indoor air quality

#### Air quality at home:

- US Environmental Protection Agency (EPA): Interactive House Guide how to improve your indoor air quality room-by-room
- <u>US EPA: A Guide to Indoor Air Quality</u> explains how indoor air can be more polluted than outdoor air, and what to do about it
- San Joaquin Valley Air District Grants and Incentives:
  - Fireplace & Woodstove Change-Out helps eligible Stockton residents replace wood- or pellet-burning devices with new, cleaner options
  - Clean Air Rooms Program provides free air filtration units to Valley residents in disadvantaged communities
- <u>CARB-Certified Air Cleaning Devices</u> list of air-cleaning devices certified by CARB for electrical safety and ozone emission levels; note that CARB does not evaluate the effectiveness of air cleaners at removing pollutants
- Regional Asthma Management & Prevention (RAMP) Fact Sheet information and resources for families and individuals with asthma looking to purchase or access air cleaners for personal use

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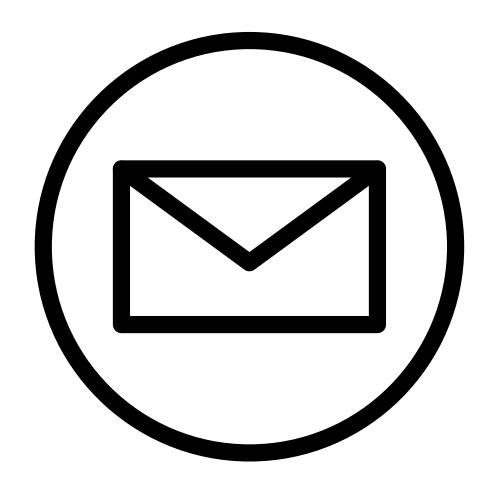
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## **Distribution Method**

- Return within one year of sample collection
- Send results to all participants at the same time\*
- Participants choose how to receive results
  - Printed packets by mail
  - Password protected email
  - In-person delivery, if neither option is feasible



<sup>\*</sup>Except for elevated results above the Level of Concern

### Previous SGP Discussions

- SGP discussion on scientific, clinical, and ethical challenges on reporting results back to participants.
  - Chemicals in Our Bodies Study (also known as Maternal and Infant Environmental Exposure Project, MIEEP)
  - Pilot Biomonitoring Exposures Study (BEST)

Educating Biomonitoring Participants About their Exposure to Environmental Chemicals: What Does the Science Say?



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**Evaluation of Results Return Materials for Biomonitoring Exposures Study (BEST)** 

Duyen Kauffman California Department of Public Health

Biomonitoring California Scientific Guidance Panel Meeting November 18, 2015 – Richmond, CA

## Evaluation of BiomSPHERE Results Return Materials



- University of California, Merced
- Community Partner: Central California Asthma Collaborative
- Surveys, interviews, and focus groups
- Study aims:
  - Assess participants' understanding of study results
  - Assess the impact of receiving results on participants (changes in knowledge, attitudes, and behaviors)
  - Recommend optimal approaches to returning results

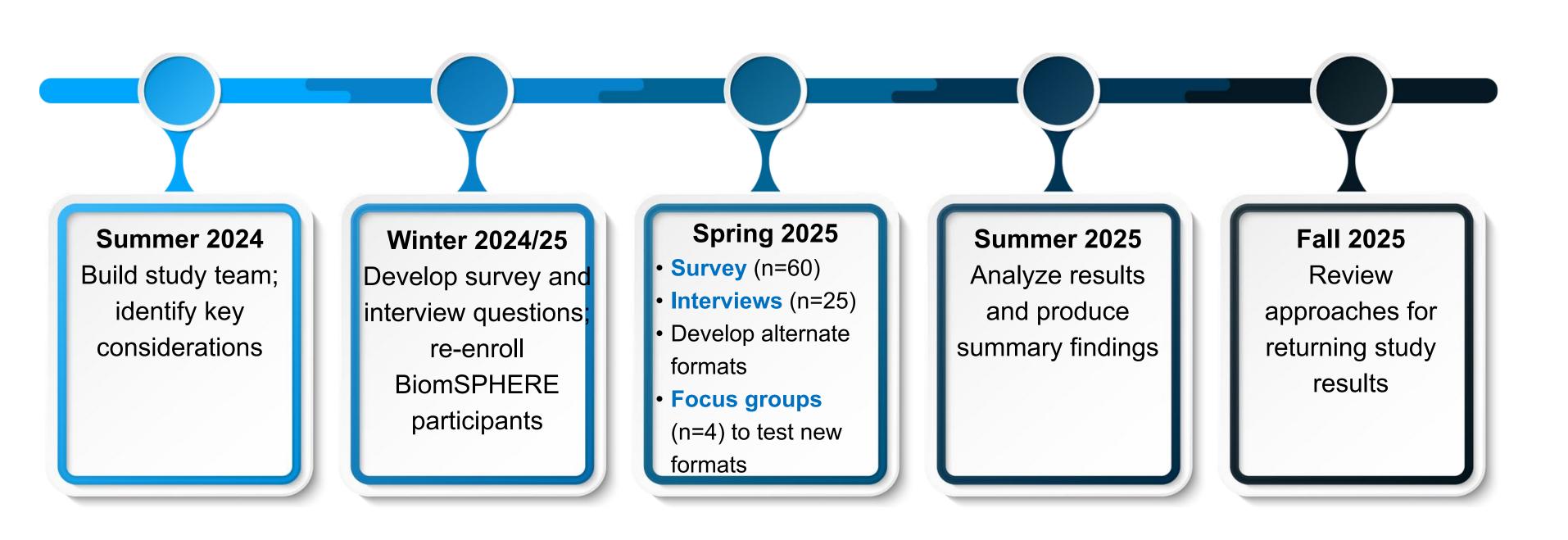




## Results included in the BiomSPHERE Packets

- Urinary biomarkers
  - Oxidative stress, inflammation, lung injury
  - Polycyclic Aromatic Hydrocarbon (PAH) metabolites
  - Volatile Organic Compound (VOC) metabolites, including cotinine

## Timeline for Evaluation Study



## Questions?

## Thank you!







