

July 2022 Meeting of the Scientific Guidance Panel for Biomonitoring California

Summary of Input and Recommendations

The Scientific Guidance Panel (SGP) for the California Environmental Contaminant Biomonitoring Program (also known as Biomonitoring California) was held virtually and at the George Alexeeff Environmental Health Library in the Elihu M. Harris State Office Building in Oakland on July 22, 2022. All Panel members attended virtually. This document briefly summarizes input and recommendations received from the Panel, as well as the range of topics discussed with the audience. Visit the [July 2022 SGP meeting page](#) to access the presentations, complete transcript, and other meeting materials.

Program Update

[Presentation](#): Kathleen Attfield, ScD, California Department of Public Health (CDPH)

Topics discussed after this presentation included:

- Opportunities and challenges of non-targeted analyses (NTA).
 - Plans for utilizing the CDPH Environmental Health Laboratory's new instrument (Agilent 7250 GC/Q-TOF) and associated software (HPLC / Q Exactive Plus) for NTA.
 - The Program will need to compile a chemical database to serve as the reference library for the NTA. As a starting point, this library could include all the chemicals and chemical groups on the Program's Priority List and then could be built out from there, to include other chemical classes of concern.
 - Concerns about detecting drugs of abuse via non-targeted analyses.
 - This can be addressed by excluding drugs from the reference library used for the NTA.
 - Results return challenges for non-targeted analyses.
 - Due to challenges in the interpretation and communication of NTA results, the Program has historically refrained from running NTA on samples it has collected from participants in their studies.
 - There is an opportunity to run NTA on the maternal serum samples from the Genetic Disease Screening Program (GDSP). As the samples are de-identified, it would not be feasible to return results to individual study participants.
 - The Program maintains a strong commitment to returning results to participants whenever possible. The Program's Biomonitoring Outreach and Communications Unit can focus on strategies for disseminating information to stakeholders and members of the public who might be impacted by the exposures identified by NTA.
- The importance of conveying the utility and limitations of weighted study data to a range of stakeholders, researchers, and communities.

- Expanding the dissemination and impact of biomonitoring study findings.
 - Examples of Program activities to broadly communicate study findings have included:
 - For the California Regional Exposure (CARE) Study in Los Angeles (LA) County, a meeting run by the South Coast Air Quality Management District was held in LA where initial findings from the study were presented.
 - For CARE-2 and CARE-3, the Program was unable to hold community meetings due to COVID-19, but will now consider holding virtual community meetings to present the findings. Lay-friendly reports, such as the [CARE-LA summary of findings](#), are also being developed to help make results more accessible to the community.
 - For the Asian/Pacific Islander Community Exposures project, the Program worked with both the community and the San Francisco Department of Public Health (SF DPH) to discuss ways the SF DPH could work with the community on exposure reduction strategies.
 - The Panel suggested these additional strategies for building on the Program's activities:
 - Focus groups could be conducted with other State agencies that work with diverse populations to ask what they find most interesting about the study findings.
 - The Program should work with community partners to present study results to communities from the CARE studies.
 - Consider utilizing social media or neighborhood groups to disseminate study findings.
 - For Assembly Bill (AB) 617 studies, local air districts can help to disseminate study findings.
- Developing a systematic process to facilitate an increased number of data analyses collaborations with graduate students at academic research institutions.
 - Issues to be addressed include those related to data accessibility, research supervision and oversight, publication/authorship, and timelines.
 - The Centers for Disease Control and Prevention has a process for student data analyses projects that could serve as a potential model for the Program.
- Developing informed consent forms for the Program's future studies that would allow for recontacting participants and permit the use of individual results in pooled analyses.

Community Biomonitoring Update

[Presentation](#): Susan Hurley, MPH, Office of Environmental Health Hazard Assessment (OEHHA)

Panel members discussed the following topics with staff presenters:

- The accuracy of the PurpleAir monitors used in the Stockton Air Pollution Exposure Project (SAPEP) to characterize exposures.

- Data from PurpleAir monitors have been shown to have good overall agreement with data collected from stationary federal regulatory monitors, but they tend to exhibit high variability.
 - The PurpleAir monitors used in SAPEP were calibrated to local stationary monitors to improve the accuracy of the data.
- Opportunities for future research using the PurpleAir monitors installed by SAPEP at the study site, such as:
 - Assessing the effectiveness of the school's air filtration units during a wildfire event.
 - Combining the data with other PurpleAir monitoring data in the community and pairing it with regional health outcomes data to get a better understanding of health impacts.
- Collaboration opportunities and other ideas for future biomonitoring studies. Panel members suggested:
 - Natural experiments taking advantage of increased air filtration in schools due to COVID-19.
 - Intervention studies, including studies designed to identify safe exercising practices for those who live in areas with high outdoor air pollution.
 - Studies evaluating the benefits of indoor air filtration, specifically during wildfire events.
 - Projects that could inform policy and reduce exposures; for example, biomonitoring for per- and polyfluoroalkyl substances (PFASs) to assess the impact of regulatory actions.
 - Biomonitoring occupational groups, particularly for exposures to pesticides.
 - Adding a biomonitoring component to health promotion studies that are collecting data from mobile health and wearable activity trackers.
- Developing a request for information (RFI) to identify potential collaborations with academic and community partners.
 - The RFI should not only collect information on potential air pollution studies, but also on other types of studies for which an air monitoring component could be added.
 - Communities should have the opportunity to provide feedback on ideas submitted via the RFI.
 - The Program should specify a deadline for submissions instead of having a continuous/open-ended submission process.
 - The Program should consider the potential benefits of having just one RFI for proposals from both academics and communities, as these stakeholder groups may already have formed partnerships.
 - The Program should clarify what resources are available for communities submitting proposals, and how those resources can be used.

Open Public Comment

Submission from Dr. Ahimsa Porter Sumchai (received after July 22, 2022):

[View from a playground in Hunters Point](#)

