Program Update

Nerissa Wu, PhD, MPH
Presentation to the Scientific Guidance Panel Meeting
March 20, 2024

Program Updates

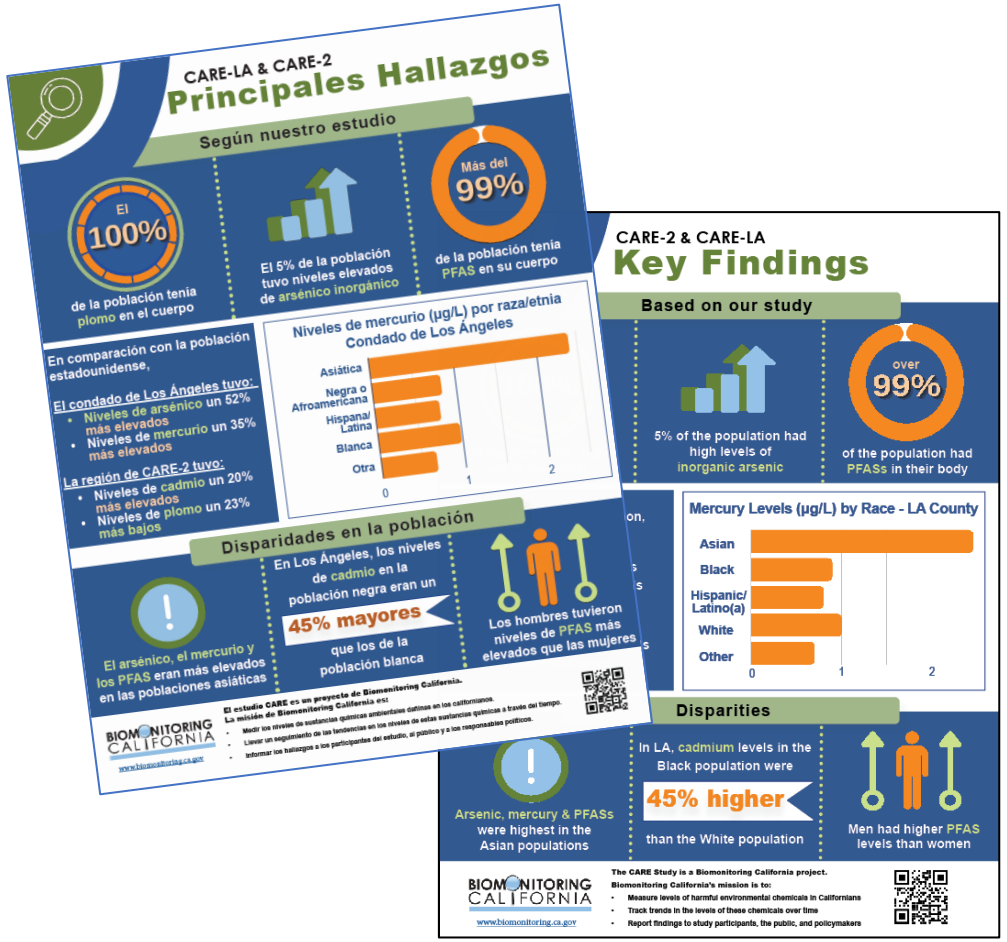
- Project updates
  - California Regional Exposure (CARE) Study
  - Measuring Analytes in Maternal Archived Samples (MAMAS)
  - Studying Trends in Exposures in Prenatal Samples (STEPS)
  - Asian/Pacific Islander Community Exposures (ACE) Project
  - AB 617 community biomonitoring studies

- Laboratory updates
- Updates to the Designated Chemicals List
- Reporting back from the National Biomonitoring Network meeting

California Regional Exposure (CARE) Study

- CARE Study data are being used in analyses linking drinking water and dietary information with serum PFAS levels
- Analysis of metals data and exposure sources has been initiated
- Lab analyses to generate speciated arsenic and phenols data for all participants is progressing

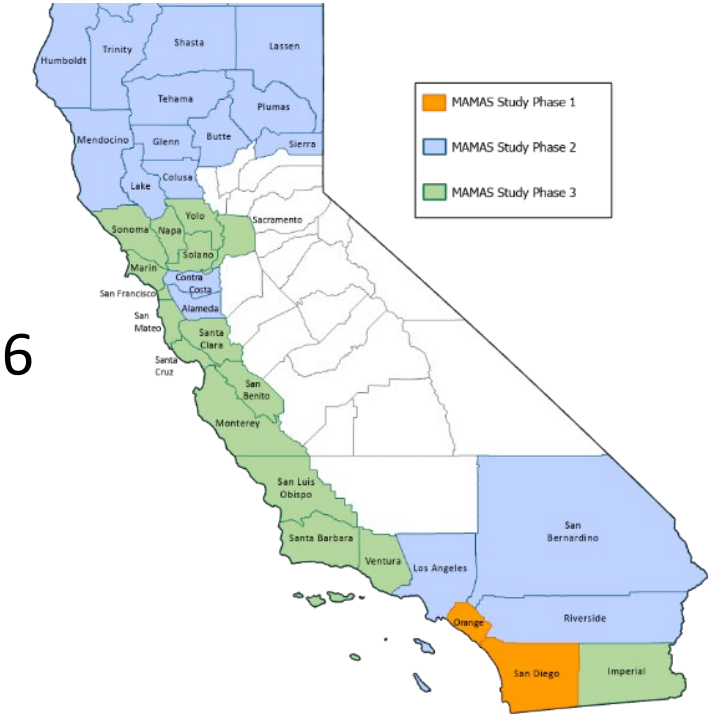
CARE Study Report and Webinar



- CARE Study Report has been posted
- Webinar to discuss study findings has been scheduled for April 18

Measuring Analytes in Maternal Archived Samples (MAMAS)

- MAMAS 1 (2012), MAMAS 2 (2015), and MAMAS 3 (2016) samples were analyzed for PFASs *or* POPs
- Summary statistics for MAMAS 1 have been posted on the web
- Analysis indicates:
  - PFAS and POPs levels generally declined from 2012 to 2016
  - Exceptions:
    - Levels of PFUnDA and PFDA did not change during this time
    - PFBA levels were higher in MAMAS 3 compared with MAMAS 2



Studying Trends in Exposures in Prenatal Samples (STEPS)

- Retrospective samples from Orange and Fresno counties (2015 – 2021) have been obtained and are being analyzed for PFASs
- Working with Biobank to save samples from 2024 pregnancies in Los Angeles County

STEPS

Studying Trends in Exposures in Prenatal Samples (STEPS)

Sample Collection Location	Birth Year	# Samples	Status
Orange County	2015 2018 2021	175 174 172	All 521 samples acquired
Fresno County	2015 2018 2021	174 175 174	All 523 samples acquired
Los Angeles County	2024		Acquiring 170 samples per month

Asian/Pacific Islander Community Exposures (ACE) Project: Participant PFAS levels and reported fish consumption

- Analyses have identified strong associations between fish consumption and serum PFAS levels
- Increases in serum PFAS levels range from 9 – 124% depending on fish type and fish parts consumed
- Findings have been shared with state and federal partners, resulting in interest in developing PFAS-based fish advisories

Air Pollution Community Biomonitoring Studies

EBDEP: VOC results returned to participants in February.

SAPEP: Community meeting scheduled for April 2024.

FRESSCA MUJERES AIRE LIMPIO EN CASA

FRESSCA-Mujeres: Evaluating air monitoring and questionnaire data. Laboratories analyzing urine samples.

BiomSPHERE

BiomSPHERE: Evaluating air monitoring and questionnaire data. Laboratories analyzing urine samples.

Environmental Health Laboratory Updates

- CARE-LA*
  - 176 of 346 samples analyzed for phenols
  - 293 of 308 samples analyzed for speciated arsenic
- FRESSCA-Mujeres
  - Received and aliquoted samples (n=156)
  - Specific gravity analysis complete
- BiomSPHERE
  - Received and aliquoted samples (n=194)
  - Specific gravity analysis complete

* As of March 2024

Environmental Health Laboratory Updates

Update on PAHs

- Passed recent proficiency testing
- Analyzing samples from the Intra-program Pilot Project (IPP) with improved panel

Update on VOCs

- Passed recent proficiency testing
- IPP samples currently being analyzed

Environmental Chemistry Laboratory

- Analysis of 1000+ samples for STEPS Study in progress
- Method development:
  - Cyclosiloxanes in serum
  - PAHs in serum
  - Total fluorine in consumer products for carpet, rugs, and protective sprays

Updated Designated and Priority Chemical Lists

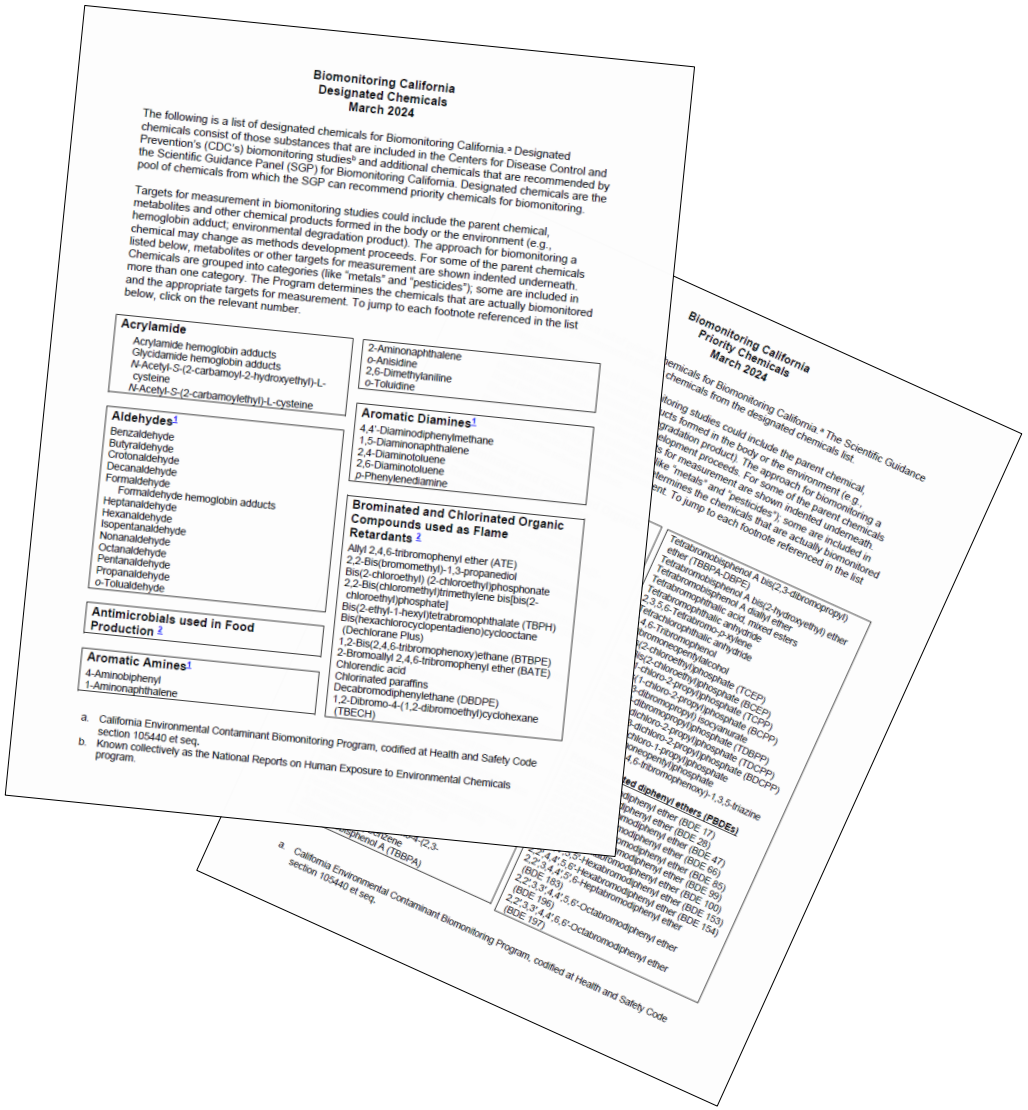
Modified the group name of PFASs to:
“Perfluoroalkyl and Polyfluoroalkyl Substances (PFASs) **and Other Substances with Carbon-Fluorine Bonds**”

Added in accordance with CDC updates:
Chemical groups:

- Chlorine (chlorotyrosine adducts)
- Terpenes

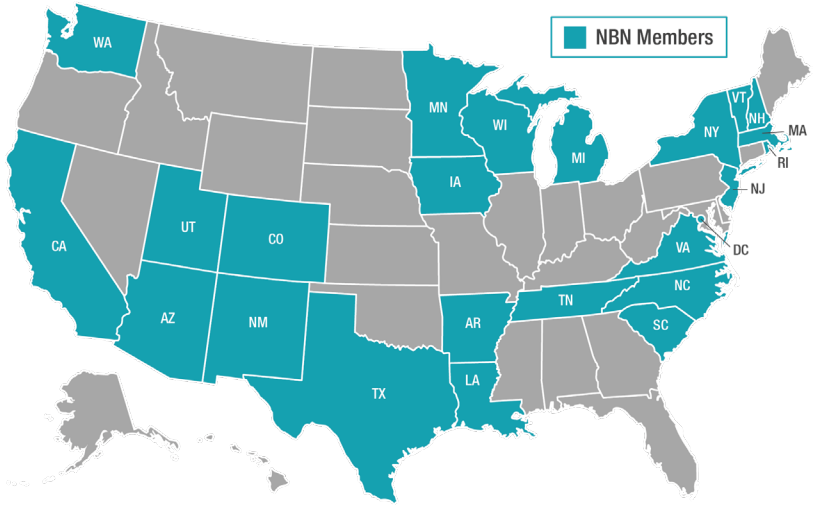
Other additions:

- Two volatile organic compounds (VOCs)
  - Furfural
  - 5-Hydroxymethylfurfural



National Biomonitoring Network

- Biomonitoring California presentations
  - Practical Approaches to Interpreting and Communicating Biomonitoring Results
  - Associations between PFASs in Drinking Water and Serum Among Southern California Adults
  - PFAS Exposures and Fish Consumption Among Asian/Pacific Islanders in the San Francisco Bay Area



Staff Update

Dinesh Adhikari
Kathleen Attfield
Hyoung Gee Baek
Paramjit Behniwal
Emily Beglarian
Rebecca Belloso
Kelly Chen
Key-Young Choe
Josephine DeGuzman
Jagdish Dhaliwal
Joginder Dhaliwal

Dina Dobraca
Julian Edwards
Toki Fillman
Jonathan Gallardo
Songmei Gao
Qi Gavin
Ranjit Gill
Amanda Hooker
Susan Hurley
Stephanie Jarmul
Duyen Kauffman

Emilie Kadhim
Amber Kramer
Ilaria Lentrichia
Kiera Melton
Meltem Musa
Bishnu Neupane
June-Soo Park
Eimi Percival^
Aalekhya Reddam^
Martha Sandy
Roshni Sarala

Jianwen She
Dan Sultana
Sayaka Takaku-Pugh^
Darcy Tarrant
McKenna Thompson
Jeff Wagner
Miaomiao Wang
Shizhong Wang
Yunzhu (Judy) Wang
Nerissa Wu
Ruihong Xiao

^New staff

BIOMONITORING CALIFORNIA

MEASURING CHEMICALS IN CALIFORNIANS

Questions?