Program Update

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Presentation to the Scientific Guidance Panel Meeting

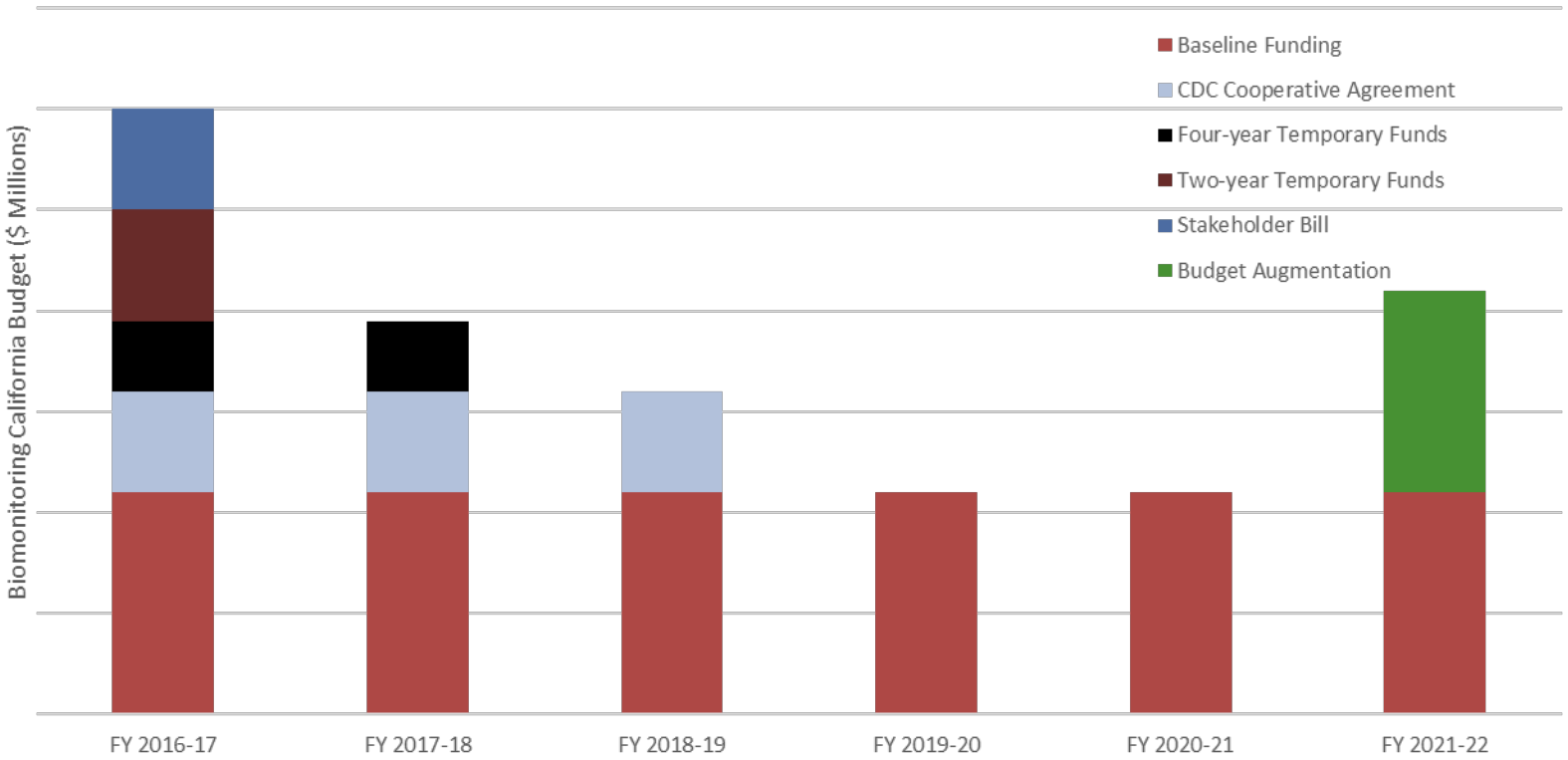
November 8, 2021

CDPH California Department of PublicHealth

Program Updates

- Administrative updates
  - Budget
  - Personnel
  - Report to the Legislature
- Current projects
  - Stockton Air Pollution Exposure Project (SAPEP)
  - California Regional Exposure (CARE) Study

Program Budget Update



Budget Augmentation

- Maintain laboratory expertise
- Analyze and release data more quickly
- Support field work
- Re-establish surveillance efforts

New Biomonitoring CA Positions

- Epidemiologists
  - Research Scientists I, III, IV
- Health Program Specialists
  - Health Program Manager I, Health Program Specialist I
- Laboratorians
  - Research Scientists II, III, IV

See CalCareers for more information on open positions.

Staff Updates

Faye Andrews*
Dinesh Adhikari
Kathleen Attfield
Hyoung Gee Baek
Paramjit Behniwal
Key-Young Choe
Sabrina Crispo Smith
Adam D'Amico
Josephine DeGuzman

Jagdish Dhaliwal
Joginder Dhaliwal
Dina Dobraca
Jeff Fowles
Qi Gavin
Songmei Gao
Ranjit Gill
Cheryl Holzmeyer*
Sara Hoover
Susan Hurley

Simon Ip
Shoba Iyer
Stephanie Jarmul
Duyen Kauffman
Alveen Kumar
June-Soo Park
Myrto Petreas

Martha Sandy
Roshni Sarala
Jianwen She
Dan Sultana
Darcy Tarrant
Jed Waldman
Miaomiao Wang
Shizhong Wang
Yunzhu Wang
Nerissa Wu

*New staff

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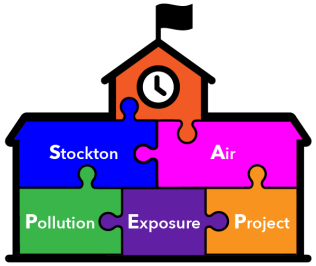

Stockton Air Pollution Exposure Project

- Approved by California Committee for the Protection of Human Subjects
- School site confirmed - All Saints Academy of Stockton
- Recruitment to begin this week
- Fieldwork scheduled for early December
- Further update will be provided at March 2022 Scientific Guidance Panel Meeting

BIOMONITORING CALIFORNIA

OEHHA
California Office of Environmental Health Hazard Assessment

Berkeley
UNIVERSITY OF CALIFORNIA

Little Manila RISING

CDPH
California Department Of PublicHealth


CARE
Study
California Regional
Exposure Study

Status of the CARE Study

	CARE-LA	CARE-2	CARE-3
Early notification of elevated metals results	X	X	X
Results return	X	X	June 2021
Summary data posted to Biomonitoring CA website	X	X	
Public meeting	X		
Publications/reports	*Expected release: Early 2022*		

CARE Report

- Describes Program purpose and goals
- Includes description of detailed study methods
- Provides additional datasets, such as:
  - Weighted data
  - Data stratified by demographics

Surveillance: Further Exploration

- Lessons learned from current analyses
- Meeting with potential collaborators
- Defining program priorities
  - Statewide vs. selected areas
  - Which analyte panels are most important to measure
  - Sampling strategy

SGP Recommendations for Seventh Report to the Legislature

- Address environmental health inequities
- Conduct intervention studies to identify the impact of public policy and non-regulatory actions
- Evaluate exposures associated with climate change
- Use non-targeted analyses to identify emerging exposures
- Design smaller studies to address key elements of the program's mission

Perfluoroalkyl and Polyfluoroalkyl Substances (PFASs)

Fluorinated aliphatic substances that contain the moiety C_nF_{2n+1}

- In a perfluoroalkyl substance, all carbon atoms, except for carbon atoms associated with functional groups, are fully fluorinated.
- In a polyfluoroalkyl substance, at least one (but not all) of the carbon atoms is fully fluorinated.
- For complete technical details on the definition of PFASs, see Buck et al. 2011.*

*Integr Environ Assess Manag 7(4):513–541, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3214619/

Primary Uses for PFASs

- Primary uses for PFAS:
  - Used to make products resistant to stains, water, and grease
  - Added to metal plating and finishing process to prevent air emissions
  - In aqueous film-forming foam (AFFF) fire suppressant
- Some longer-chain PFASs have been phased out of manufacturing, but many PFASs continue to be produced and used worldwide.

Health Impacts Associated with PFASs

Some PFASs are associated with:

- Increased risk of thyroid disease and cancer (testicular / kidney)
- Increased cholesterol (total and low-density lipoprotein)
- Infertility and adverse birth outcomes (low birth weight)
- Altered child development (puberty and skeletal changes)
- Impacts on liver enzyme activity
- Weakened immune system (increased asthma, reduced vaccine response)

Available PFAS Methods

- Twelve legacy PFASs
- 40 replacement PFASs
  - Includes Gen-X, Adona, and 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
- Non-targeted analysis for PFASs and other chemicals of concern