

MEETING  
STATE OF CALIFORNIA  
ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT  
ENVIRONMENTAL CONTAMINANT BIOMONITORING PROGRAM  
SCIENTIFIC GUIDANCE PANEL

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH  
AUDITORIUM  
850 MARINA BAY PARKWAY  
RICHMOND, CALIFORNIA

THURSDAY, NOVEMBER 9, 2017  
10:05 A.M.

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A P P E A R A N C E S

PANEL MEMBERS:

Megan R. Schwarzman, M.D., M.P.H., Chairperson

Scott M. Bartell, M.S., Ph.D.

Carl Cranor, Ph.D., M.S.L.

Marion Kavanaugh-Lynch, M.D., M.P.H.

Ulrike Luderer, M.D., Ph.D.

Penelope (Jenny) Quintana, Ph.D., M.P.H.

José R. Suárez, M.D., Ph.D., M.P.H.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY:

Yana Garcia, J.D., Assistant Secretary for Environmental  
Justice and Tribal Affairs

OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT:

Lauren Zeise, Ph.D., Director

Amy Dunn, M.P.H., Safer Alternatives Assessment and  
Biomonitoring Section, Reproductive and Cancer Hazard  
Assessment Branch

Sarah Hoover, M.S., Chief, Safer Alternatives Assessment  
and Biomonitoring Section, Reproductive and Cancer Hazard  
Assessment Branch

Duyen Kauffman, Safer Alternatives Assessment and  
Biomonitoring Section, Reproductive and Cancer Hazard  
Assessment Branch

A P P E A R A N C E S C O N T I N U E D

DEPARTMENT OF PUBLIC HEALTH:

Russell Bartlett, M.P.H. Environmental Health  
Investigations Branch

Nerissa Wu, Ph.D., Chief, Exposure Assessment Section,  
Environmental Health Investigations Branch

GUEST SPEAKERS:

Colin Bailey, The Environmental Justice Coalition for  
Water(EJCW)

Esther Bejarano, Comite Civico Del Valle

GUEST SPEAKERS:

Laura Gracia-Santiago, Communities for a Better  
Environment

Jean Kayano, Center for Community Action and Environmental  
Justice(CCAEJ)

Deanna Rossi, M.P.H., Impact Assessment

ALSO PRESENT:

Asa Bradman, Ph.D., University of California, Berkeley

Nancy Buermeyer, Breast Cancer Prevention Partners

Samara Geller, Environmental Working Group

Alex Nguyen, APA Family Support Services

Sharyle Patton, Commonweal

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## P R O C E E D I N G S

1  
2 MS. KAUFFMAN: Hi. Good morning, everyone. If  
3 everyone could please take their seats. I'm Duyen  
4 Kauffman. And we are going to begin the meeting shortly.  
5 But first just a few housekeeping items. Today's meeting  
6 is available via webinar. Please speak directly into the  
7 microphone and introduce yourself before speaking. This  
8 is for the benefit of the people participating via the  
9 webinar and for the transcriber.

10 The materials for the meeting were provided to  
11 SGP members and posted on the Biomonitoring California  
12 website. A small number of copies of the meeting  
13 materials are available at the table near the entrance to  
14 the auditorium.

15 We will break at 12:30 for lunch, and take  
16 another short break at about 3:40 p.m. The restrooms are  
17 located at the opposite end of the hall from where we are  
18 now on either side. And in case of an emergency, we also  
19 have exits here at the front on either side, and as you  
20 exit the auditorium immediately to right and left.

21 And now I'd like to introduce Lauren Zeise,  
22 Director of the Office of Environmental Health Hazard  
23 Assessment.

24 DIRECTOR ZEISE: Hello. I'd like to welcome the  
25 Panel and the audience to this meeting of the Scientific

1 Guidance Panel for the California Environmental  
2 Biomonitoring Program, also known as Biomonitoring  
3 California. Thank you all for participating and sharing  
4 your expertise. I'm really excited about today's meeting  
5 that's focusing on environmental justice and  
6 biomonitoring.

7           But first, just a brief recap of our meeting on  
8 July 20th. At that meeting, the Panel received an update  
9 about program activities and provided input on aspects of  
10 the California Regional Exposure, or CARE, study, and  
11 discussed creative funding options for the Program. The  
12 Panel also heard from Jon Sobus of U.S. EPA's NERL labs  
13 about non-targeted analysis and research, and had a rich  
14 discussion about scientific progress in this field.

15           Also, Roy Gerona and Axel Adams of UCSF presented  
16 on glyphosate biomonitoring, and discussed with the Panel  
17 a number of complex analytical challenges involved in this  
18 work.

19           The Panel also voted unanimously to recommend  
20 that the class of organophosphorus pesticides be added  
21 Biomonitoring's list of designated chemicals.

22           We also honored Dr. Asa Bradman who served on the  
23 SGP for 10 years, and is here today. Hello, Asa.

24           So also at the July meeting, I announced the  
25 appointment by Governor Brown of José Suárez -- Dr. José

1 Suárez. And today I'm pleased to welcome him, and  
2 introduce him to you all, and welcome him to this first  
3 meeting.

4 I'll be giving a brief introduction about his  
5 background and research interests and then we'll formally  
6 swear him in.

7 So José is an assistant professor in the  
8 Department of Family Medicine in Public Health at UC San  
9 Diego. His research focuses on understanding the role of  
10 environmental contaminants on brain development and  
11 metabolic alterations in children and adults. His  
12 examining associations between low level pesticide  
13 exposures and effects on children's development. He's  
14 involved in community-based participatory efforts in rural  
15 populations to collect health surveys and conduct  
16 environmental screenings. He also studies exposures to  
17 persistent organic pollutants, such as PCBs and PBDE flame  
18 retardants.

19 In one project he's investigating the potential  
20 relationships to markers of these chemicals with oxidative  
21 stress, alterations in glucose and lipid metabolism and  
22 subclinical heart disease.

23 José earned his M.D. from the Universidad San  
24 Francisco de Quito in Ecuador and his Ph.D. and M.P.H.  
25 from the University of Minnesota.

1           We welcome you to the SGP.

2           PANEL MEMBER SUÁREZ: Thank you.

3           (Applause.)

4           DIRECTOR ZEISE: So now, we'll do the official  
5 swearing in of Jose.

6           MS. HOOVER: Make sure you speak into the mic.

7           DIRECTOR ZEISE: And now we'll do the official  
8 swearing in of José Suárez.

9           Why don't we stand up. And maybe if you take  
10 your mic.

11          PANEL MEMBER SUÁREZ: Hello. Is this on?

12          DIRECTOR ZEISE: Okay. You have to almost  
13 swallow while speaking into them.

14          Okay. So I, José Ricardo Suárez, do solemnly  
15 swear or affirm --

16          PANEL MEMBER SUÁREZ: I, José Ricardo Suárez, do  
17 solemnly swear or affirm --

18          DIRECTOR ZEISE: -- that I will support and  
19 defend --

20          (Thereupon the fire alarm went off.)

21          (Laughter.)

22          MS. HOOVER: All clear. Go for it.

23          DIRECTOR ZEISE: Okay.

24          PANEL MEMBER SUÁREZ: I do solemnly swear I will  
25 defend --

1           DIRECTOR ZEISE:  -- that I will support and  
2 defend --

3           PANEL MEMBER SUÁREZ:  -- that I will support and  
4 defend --

5           DIRECTOR ZEISE:  -- the Constitution of the  
6 United States --

7           PANEL MEMBER SUÁREZ:  -- the Constitution of the  
8 United States --

9           DIRECTOR ZEISE:  -- And the Constitution of the  
10 State of California --

11          PANEL MEMBER SUÁREZ:  -- and the --

12          (Thereupon the fire alarm went off.)

13          DIRECTOR ZEISE:  Okay -- and the Constitution of  
14 the State of California --

15          PANEL MEMBER SUÁREZ:  -- and the Constitution of  
16 the State of California --

17          PANEL MEMBER SUÁREZ:  -- against all enemies  
18 foreign and domestic --

19          PANEL MEMBER SUÁREZ:  -- against all enemies  
20 foreign and domestic --

21          DIRECTOR ZEISE:  -- that I will bear true faith  
22 and allegiance to the Constitution of the United States  
23 and the Constitution of California --

24          PANEL MEMBER SUÁREZ:  -- that I will bear truth  
25 faith and allegiance to the Constitution of the United

1 States and the Constitution of the State of California --

2 DIRECTOR ZEISE: -- that I take this obligation  
3 freely --

4 PANEL MEMBER SUÁREZ: -- that I take this  
5 obligation freely --

6 DIRECTOR ZEISE: -- without any mental  
7 reservation or purpose of evasion --

8 PANEL MEMBER SUÁREZ: -- without any mental  
9 reservation for purpose of evasion --

10 DIRECTOR ZEISE: -- and that I will well and  
11 faithfully discharge the duties upon which I am about to  
12 enter --

13 PANEL MEMBER SUÁREZ: -- and that I will well and  
14 faithfully discharge the duties upon which I'm about to  
15 enter.

16 DIRECTOR ZEISE: Okay. Welcome, to the SGP.

17 PANEL MEMBER SUÁREZ: Thank you.

18 (Applause.)

19 DIRECTOR ZEISE: Okay. So now, I'll turn  
20 facilitation of the meeting over to the SGP Chair, Meg  
21 Schwarzman who will provide an overview today's meeting.

22 CHAIRPERSON SCHWARZMAN: Thank you. Thank you.  
23 No, it's not on. I have a green light, but it's not on.

24 Okay. Let's try that. There we go. Thank you,  
25 Lauren and welcome José. I'm really glad to have you

1 here.

2           As Lauren said -- let me see if I can do this  
3 without having to hold it.

4           I'm going to start just by talking about the  
5 goals for today's meeting. As usual, we'll start by  
6 receiving general program updates and providing any input  
7 on those that we have. And then we're going to hear a  
8 series of presentations reporting back on Biomonitoring  
9 California's recent environmental justice activities. And  
10 those include three things, the expansion of the ACE  
11 Project, the Asian/Pacific Islander Community Exposures  
12 Project to a Vietnamese population in San Jose.

13           We'll hear a report back on the design and launch  
14 of the new East Bay Diesel Exposure Project. And we'll  
15 hear a report back about the listening sessions that were  
16 conduct across the State with community advocacy and  
17 tribal groups to learn about local and environmental  
18 exposure concerns and biomonitoring priorities. So those  
19 are the first two goals.

20           The third is a little bit unusual for our  
21 Biomonitoring Panel meetings in the past. We're going to  
22 have a roundtable discussion of Biomonitoring California's  
23 EJ activities. And we'll start these off by remarks from  
24 some guest discussants who will be here today. They're  
25 here from community and advocacy organizations across the

1 State.

2           And with the guest discussants and the audience.  
3 We'll be identifying key next steps that are needed to  
4 build on the program's EJ work so far. We'll summarize  
5 the community priorities for future biomonitoring studies,  
6 and we'll highlight strategies for engaging with impacted  
7 communities.

8           And the final goal for today is to hear possible  
9 topics for the 2008 SGP meetings and provide input, time  
10 permitting.

11           So that's what we'll be doing today. Those are  
12 the goals. For today's meeting, as I mentioned, this is a  
13 little bit of a different format than past meetings. So  
14 both the morning and afternoon sessions will involve  
15 interactive discussion with audience. And you're not  
16 required to fill out comments cards to participate in  
17 those discussions. We really want this to be -- it's  
18 called a roundtable discussion for a reason.

19           But do feel free to submit a comment card, if you  
20 want to ensure that you're called on. Those can be  
21 obtained from the table near the entrance to the  
22 auditorium, and you'll turn the cards into Duyen Kauffman  
23 who opened the meeting.

24           There she is.

25           If you're joining the meeting today by webinar,

1 you can provide comments by email at  
2 biomonitoring@oehha.ca.gov or you can also - this is new  
3 for this meeting - provide comments via the chat option in  
4 WebEx. Those comments submitted by email or by chat that  
5 are relevant to the topic under discussion will be read  
6 allowed during the meeting and paraphrased when necessary  
7 due to time constraints. And too -- so along those lines,  
8 to ensure that everybody gets to comment who wants to be  
9 heard, please just keep in mind to keep your comments  
10 brief, and focused on the items that have not already been  
11 raised by someone else during the interactive discussions.  
12 And, if necessary, we'll put time limits on commenters,  
13 but we'll just see how that goes.

14 Oh, correction. There is no chat function  
15 available today, as we thought there would be. So just  
16 send comments. If you're watching by webinar and you want  
17 to join the discussion, please just send comments by  
18 email, and we'll incorporate them into the discussion.

19 So to start with our first agenda item of Program  
20 Updates, I want to introduce Nerissa Wu. I'm very pleased  
21 to announce that Nerissa has been appointed as Chief of  
22 the Exposure Assessment Section at the California  
23 Department of Public Health, and is also now officially  
24 lead for Biomonitoring California.

25 Congratulations to Nerissa.

1 (Applause.)

2 (Thereupon an overhead presentation was  
3 Presented as follows.)

4 CHAIRPERSON SCHWARZMAN: So she will provide an  
5 update on general program activities, as well as an  
6 overview of recent environmental justice work.

7 DR. WU: There we go. Hello. That's working.  
8 Thanks, Suzanne.

9 Good morning, everybody. Welcome to you all,  
10 especially to our newest SGP member, and our not so new  
11 SGP members, and our special guests who have come for our  
12 roundtable discussion. I'm really looking forward to  
13 hearing about that.

14 Today, I am going to give our customary  
15 programmatic update, and include some information on the  
16 CARE Study which is about to go live. And then I'll  
17 transition us into this focus on environmental justice,  
18 specifically the work we have accomplished under our last  
19 fiscal year supplement to our budget.

20 Then I'm going to turn things over to a number of  
21 speakers who will -- who will be talking in more detail  
22 about the work that we have done this last year.

23 --o0o--

24 DR. WU: Sorry about that.

25 So this is our budget story. We don't have to



1 collecting samples, and to analyze the data that comes in.  
2 We never want to compromise on the work we do, for  
3 example, our participant experience and how we work with  
4 participants to return results. Those are very resource  
5 intensive things, but it's a real core part to what they  
6 do as a program. And we are also legislatively mandated  
7 to do this results return work.

8           So what happens is we have to take on less  
9 projects. We can't take on all the projects we want to  
10 do. And we have had to cut back on study design. We've  
11 seen this in our CARE Study protocol, where we have fewer  
12 samples, fewer analytes, and there have been other study  
13 design decisions that have had to be made based on the  
14 available budget.

15           Another thing that happens is that we end up  
16 asking our remaining staff to do a lot with fewer  
17 resources, and they really have been working like crazy,  
18 they're all great, but this can only work for so long.  
19 It's not really a sustainable way to run a program, and  
20 it's really difficult for us to meet the potential of the  
21 program, and also the original vision of the program  
22 working under these conditions.

23                           --o0o--

24           DR. WU: But let's move on from that gloomy  
25 story. I want to give a brief project update on CARE,

1 because this is actually very exciting. We are launching  
2 next month. So this is the last update before we go live  
3 in the field. Statewide sampling has been a priority for  
4 the Program since its inception. It's a key part of our  
5 founding legislation, which states that the statewide  
6 Biomonitoring Program will assist in the evaluation of the  
7 presence of toxic chemicals in a representative sample of  
8 Californians, establish trends and levels of these  
9 chemicals in Californian's bodies over time, and assess  
10 effectiveness of public health efforts to decrease  
11 exposure of Californians to specific chemical  
12 contaminants.

13 That is a very lofty, very worthy goal. There  
14 are also a lot of challenges to getting a study of this  
15 magnitude up and running, particularly in this  
16 unpredictable budget scenario. And there are many  
17 logistic challenges, because California is such a large  
18 state. So our move to a regional approach has really made  
19 it possible to get this on the ground.

20 --o0o--

21 DR. WU: And just a reminder of what CARE is. It  
22 is the California Regional Exposure, or CARE, study. We  
23 have divided California into these different regions,  
24 eight regions. And we'll be starting up this winter in  
25 Los Angeles as Region 1, then we'll move on to Region 2,

1 which is Inland Valley an 2019. And in each region, we  
2 will be biomonitoring for metals, and for the per- and  
3 polyfluoroalkyl substances, the PFASs. Of course it's so  
4 important. There are many, many chemical panels of  
5 importance, of concern, that we would like to be measuring  
6 across the State, and we will look to add to those  
7 chemical panels as resources allow. We'll already have  
8 the samples stockpiled, and frozen, and as we -- as we  
9 can, we will be adding other panels.

10 --o0o--

11 DR. WU: So there's the proposed timeline that  
12 you've seen before. And we're halfway through this. We  
13 have gone to the IRB and our protocol has been approved.  
14 Since that approval in September, we've continued to  
15 solicit feedback from focus groups and other reviewers.  
16 We've been working with our website vendor to create our  
17 online presence. And as we've learned more about what  
18 ability our software has, we've had to tweak our study  
19 tools a little bit. So there's a little bit of protocol  
20 tweaking going on now.

21 We are in the last month or so of getting details  
22 worked out. And with every design decision, we're  
23 prioritizing the participant experience. Does this make  
24 it easier or harder for a participant to stay in the  
25 study. Is it still as accessible as we want it to be.

1 Can they read it on their phone? Is it in the right  
2 language? And, of course, we need to always consider the  
3 impacts of changes to our protocol on our budget.

4 So we're in that final stage. Everyone who  
5 designs and implements studies knows what this phase is  
6 like. We're in the weeds getting things like our  
7 participant tracking system tested. We're making sure  
8 documents are translated correctly. We're connecting  
9 outreach to groups to make sure there's awareness of our  
10 study, reserving space so we can collect the samples.  
11 Down in the weeds like making sure we can get dry ice to  
12 keep our samples frozen in the field and shipped back to  
13 the lab intact.

14 So there's a lot of that work going on now in  
15 preparation for our soft launch in December.

16 --o0o--

17 DR. WU: It's just a month away. So this will be  
18 an opportunity for us to do a final test of how everything  
19 works. Our website will be up and running with our  
20 pre-screening survey available in the 10 most commonly  
21 lang -- common languages spoken in L.A. County. So, of  
22 course, Spanish and English, but also Chinese, Vietnamese,  
23 Japanese, Korean, Farsi, Russian, Armenian, and Tagalog.

24 And let me just say our multi-lingual staff has  
25 been great reviewing translations and making sure that

1 we've kept the tone of our various study tools correct.  
2 And people who are interested in the study can then sign  
3 up, fill out the prescreening survey with demographic  
4 information, and that will be used both for eligibility  
5 screening but also for our sample selection.

6 We're also deep in our communications plan  
7 conducting outreach of all sorts, working with different  
8 community partners, conducting webinars, going to  
9 meetings, and also providing content for social media.

10 --o0o--

11 DR. WU: And then, in January, our postcard will  
12 go out. We have selected mail codes in the different  
13 service provider areas of Los Angeles. The postcard will  
14 go to every household in those selected mail codes. We  
15 will also be giving out this postcard to health fairs, to  
16 community events. Different community groups will be  
17 handing it out. And this will direct interested  
18 participants to go to our website, where they can learn  
19 more about the study, and they could also fill out the  
20 prescreening survey to indicate their interest. And then  
21 we select our participants.

22 So next time we report back to you in March,  
23 we'll have a better idea of how this is all working. A  
24 little bit like throwing a party, and you're not sure if  
25 no one is going to show up, or you're going to have a rave

1 on your hands --

2 (Laughter.)

3 DR. WU: -- so we're in that place right now.

4 --o0o--

5 DR. WU: So I'm going to shift now to our  
6 environmental justice work. In spring 2016, a number of  
7 our stakeholders, led by Breast Cancer Fund, now know as  
8 Breast Cancer Prevention Partners successfully advocated  
9 for a million dollar augmentation to our budget to allow  
10 the Program to focus on overburdened communities. We had  
11 many supporters, many of whom are listed here, signing  
12 this very compelling letter advocating for this funding  
13 change, and very appreciated. It really -- it meant a lot  
14 to us that we had so many supporters come out and speak in  
15 support of this augmentation.

16 --o0o--

17 DR. WU: So what did we do with this -- with this  
18 funding? Let me just say that limited term funding in the  
19 State, it's great to get, but there are also many -- a  
20 number of mechanisms we need to go through in the state to  
21 get the funding, and then to find mechanisms for the money  
22 to flow out of the state. Also, getting studies on the  
23 ground, you need to be ready to mobilize really quickly  
24 with limited term funding. And there is -- it takes time  
25 to build collaborations to develop product -- project

1 protocols.

2           So when this funding became available, we just --  
3 we just had to jump in and go and -- and I'm impressed by  
4 everyone's work on our staff for getting all this work  
5 done.

6           So the Asian/Pacific Islander Community Exposure  
7 Study, which I will describe a little more fully. We had  
8 a project that was already in the works, and we were able  
9 to expand it quickly.

10           The East Bay Diesel Exposure Project which you'll  
11 hear about more from Duyen in a minute was organized in  
12 record time. And then the community outreach and  
13 engagement, we were really lucky to have Impact Assessment  
14 with whom we've partnered on many different projects. And  
15 their staff were available to start this community  
16 outreach and listening session work very quickly.

17           This was a very important feature of our work  
18 with EJ prioritization. But also in conjunction with our  
19 statewide work, we really wanted to hear from  
20 organizations across the state how we should be  
21 prioritizing different analytical panels and issues, and  
22 how biomonitoring can help move other issues forward.

23           And in addition to the surveys and meetings, we  
24 also initiated this community newsletter, which we hope  
25 will continue into the future as a vehicle for getting

1 information out to a broader audience.

2           We're able to publish one of those this year, and  
3 we actually have the proofs of our second issue coming  
4 out. Very exciting.

5           So a little more detail on ACE. This is the  
6 Asian/Pacific Islander Community Exposures Project. This  
7 grew out of years, decades really, working with the APA  
8 Family Services, which is a San Francisco organization  
9 working on the issue of mercury in fish and how to make  
10 safer fish choices.

11           A few years ago, APA approached us about  
12 conducting a biomonitoring project to look at mercury  
13 levels in their constituents. And we ended up  
14 collaborating on an NIH proposal to look at metals and  
15 PFAS levels in four different Asian subpopulations. There  
16 was already indication in the literature from NHANES and  
17 from some of our previous studies, that these analytes  
18 might be present at higher levels in Asians.

19           And there's also very little data available about  
20 Asian subpopulations. Asians tend to be clumped together  
21 in studies.

22           The grant was actually not eventually funded, but  
23 it was the seed of an idea, and we were able to take that  
24 protocol and turn it into the ACE Project starting with  
25 one ethnic group focusing on the Chinese population in San

1 Francisco. We started small with 60 participants, which  
2 later expanded to 100. And we looked at metals, arsenic,  
3 mercury, lead, and cadmium, and the PFASs. And we worked  
4 very closely with APA on running some focus groups and  
5 working with the organization on study design and tools to  
6 make sure that we were asking questions and designing  
7 recruitment appropriately for the community.

8 We have just finished returning results to the  
9 ACE I population, and we have held a community meeting to  
10 more broadly talk about the results.

11 --o0o--

12 DR. WU: The EJ funding allowed us to expand the  
13 study to cover an addition subpopulation, the Vietnamese  
14 population in San Jose.

15 --o0o--

16 DR. WU: And this timeline just shows how the two  
17 parts of ACE have interacted. As I said, we have pretty  
18 much completed the ACE I results return. We are about to  
19 get the results back on ACE II. And so we'll be --  
20 actually, in the next week, we're going to start doing our  
21 notification calls reaching out to people with elevated  
22 metals levels, and we should be returning results in the  
23 next month or two.

24 --o0o--

25 DR. WU: As I noted in our last meeting, there

1 were a number of participants from ACE I with elevated  
2 metals level. Overall the ACE I study population had  
3 higher blood mercury, cadmium, and lead levels compared  
4 with adults of all races from NHANES.

5           And ACE participants also had mercury levels  
6 almost two times higher than the non-Hispanic Asian  
7 population from NHANES. We are continuing to work with  
8 this data, but preliminary analysis shows that there is an  
9 association between frequency of fish consumption and  
10 consumption of fish cake, and paste, and other fish  
11 products, and mercury levels, which is not a surprise.  
12 But also participants who reported use of herbal remedies  
13 and products had higher mercury and lead levels than those  
14 who did not.

15           We are, like I said, continuing to work with this  
16 data, and we'll have more to report on this in coming  
17 meetings. We have also identified participants with level  
18 of concern. And this is one of the reasons why it's so  
19 important to work in a community like this. We had one  
20 person with an elevated blood mercury level to the level  
21 of concern. And 26 percent of the participants had  
22 inorganic arsenic levels at the level of concern, compared  
23 with 13 percent of our Project BEST population. So quite  
24 high.

25           We expect that we'll see a similar profile for

1 ACE II participants. And we are just getting those  
2 results back, so that we can do our notification calls,  
3 and get some more information about where that exposure is  
4 coming from.

5 --o0o--

6 DR. WU: So the ACE Project was a good  
7 illustration of the value of community biomonitoring. It  
8 really brings the focus of biomonitoring to a  
9 disproportionately impacted community. And it provides  
10 information not only to the participants, but to a wider  
11 community, the friends, the family, the community who  
12 might have a similar exposure profile.

13 Working with the community for input on things  
14 like survey tools and how to reach out to the population  
15 helped us create an effective recruitment strategy, and  
16 ask the right questions, and it really is an easily  
17 replicated and scalable model. We were able to get out  
18 into the field with ACE II very quickly.

19 There are a number of communities in California  
20 with a similar exposure profile, and, of course, many  
21 communities who have different concerns. And this is a  
22 model that we would hope to take out into the field to  
23 work with other communities in a similar way.

24 Given the reduced budget that I described  
25 earlier, we don't currently have a way to support

1 additional community studies. But environmental justice  
2 and a focus on health equity, and healthy communities is a  
3 program priority. So finding a way to continue this work  
4 through collaborations or through supplemental funding is  
5 an important part of who we are.

6 --o0o--

7 DR. WU: So in closing I just want to acknowledge  
8 our staff who have been making all this happen, who worked  
9 so hard on all the different aspects of our projects.

10 --o0o--

11 DR. WU: And I also want to acknowledge people  
12 within and beyond the program who make the program what it  
13 is.

14 And I just want to take a minute to highlight Dr.  
15 Myrto Petreas. I first met Myrto when I was a doctoral  
16 candidate designing my first biomonitoring study, and she  
17 was already a rock star in the environmental chemistry and  
18 exposure world, and I was in such awe of her. So it's  
19 been a real privilege to have an opportunity to work with  
20 her.

21 She was -- has been -- she's played a key role in  
22 the creation and implementation of Biomonitoring  
23 California. And next month she is making good on her  
24 threat to retire --

25 (Laughter.)

1 DR. WU: -- from State service. So I just wanted  
2 to close my talk by acknowledging the huge contributions  
3 that Myrto has made, and -- to both the Program, but also  
4 to the science of biomonitoring overall.

5 So thank you, Myrto.

6 (Applause.)

7 CHAIRPERSON SCHWARZMAN: Thank you, Nerissa.  
8 Yeah, if wouldn't mind staying up for a sec. We have  
9 about 10 minutes for questions from the Panel and from the  
10 audience.

11 Go ahead. Yes, Jenny.

12 PANEL MEMBER QUINTANA: Hi. Is this on?

13 I had some questions about the BEST Study, and  
14 that has to do with representativeness of the sample.  
15 Because as you know, one of the huge values of the CDC  
16 environmental health biomonitoring report has been its  
17 ability to provide reference values for the U.S. And  
18 so -- and forgive me if you've already covered this in  
19 previous times. But do you have a targeted recruitment,  
20 for example, ethnic makeup that mirrors L.A. County that  
21 you are going to kind of check-off and fill. I didn't see  
22 that in there.

23 And I think the epidemiologist here, José Suárez,  
24 might well comment on this. But how -- and also on that  
25 same vein, is the recruitment and sign-up, is that mobile

1 friendly? Because that will be very important for certain  
2 communities, you know, just to make sure you're not  
3 missing people. And are the questionnaires  
4 administered -- self-administered, or are they  
5 administered to the person, which has a potential ability  
6 to miss the participants, if they're self-administered, So  
7 I just have a few questions about the representative.

8 DR. WU: So it was representation -- and we have  
9 gone back and forth about random versus representative,  
10 and how we can best capture the population of L.A. With  
11 Project BEST, I think there was an attempt to be -- to  
12 have a randomized sample. And, of course, when you do a  
13 randomized recruitment, you end with sort of a skewed --  
14 skewed participation pool.

15 So we are starting -- that's partly why we've  
16 incorporated the random mail code recruitment. But  
17 recognizing that we are not going to get -- we're not --  
18 it probably won't be very successful in pulling people in,  
19 because people don't tend to respond to postcards and  
20 things.

21 Our recruitment by giving out postcards through  
22 community partners, of course, will be biased, which is  
23 why there's a two stage recruitment process, where people  
24 will fill out their interest -- they'll indicate their  
25 interest in the study by filling out that prescreening

1 survey. And then we'll go in and we are actually in the  
2 process of developing the algorithm for selecting our  
3 participants.

4 We will do our best to match the racial makeup of  
5 L.A. County, as well as the geography broken down by  
6 service provider areas. There are a lot of other  
7 parameters which we would like to hit, for example, age,  
8 sex, occupation. There are a number of demographic  
9 parameters that we would like to be able to cover. With a  
10 sample size of 500, and also because we are subject to who  
11 fills out the prescreening survey, we are not going to be  
12 able to cover all those strata. But certainly race and  
13 geography are our two priorities to meet representation  
14 across the county.

15 Do you want to respond to that or do you want me  
16 to go onto your other question?

17 PANEL MEMBER QUINTANA: I guess -- I guess just  
18 want to really thoughtfully think about who you're  
19 selecting among, that your first attempt to get as many  
20 people as possible in that pool from which you select is  
21 very important, because it -- you don't want to favor  
22 people that are already concerned about chemicals or who  
23 are more educated or whatever thing. You want to have a  
24 nice pool of possible -- and I know that there's huge  
25 funding limitations. But I just want to make a plug for

1 the importance of that to make the data the most useful  
2 that it could possibly be.

3 DR. WU: We have been talking about how we get  
4 those postcards out. So reaching beyond environmental  
5 groups, or the community groups that are already working  
6 on exposure issues, of course, is important. So we are  
7 going to different venues, where you might have large  
8 gathering, but that are not necessarily environmentally  
9 focused to try to -- both as an educational tool, because  
10 I think raising awareness is always good, but yes, also to  
11 broaden out our appeal and broaden that prescreening pool  
12 is very key.

13 It's connected with your other point about mobile  
14 accessibility. We are really subject to what Salesforce  
15 can do. So there are some components of our -- of our  
16 online presence that are very mobile adaptable. So, for  
17 example, our surveys, our prescreening survey and our  
18 exposure survey are both powered by SurveyMonkey. And  
19 those will adapt to a screen of whatever size. There are  
20 other parts which it's unclear how they'll look on a phone  
21 screen. But we are working hard to make sure that people  
22 of -- people can use screens of all different sizes.

23 We have also a paper presence, so if people want  
24 to participate in the study on paper, that's available to  
25 them as well.

1           Oh, and your last question about  
2 self-administration of the surveys, that's one of the  
3 things we kind of had to give up. Administering surveys,  
4 you get better data, but it's very labor intensive, and it  
5 can be harder to get people to sit down with you, so the  
6 surveys are available online, and people will take those  
7 themselves. They're very quick.

8           Of course, we had to go through the giant list of  
9 questions we wanted to ask and hone down to something that  
10 could be answered in 10 to 15 minutes. We do have an  
11 ability to reach out to people who don't fill out the  
12 survey completely, or who don't want to do it online and  
13 we will -- we will take their information on the phone.

14           We also have a survey, which will look at  
15 temporally proximal exposures, for -- particularly for  
16 quickly metabolizing chemicals. When they show up for  
17 their phlebotomy and urine sample collection, there's a  
18 very short questionnaire that we'll be asking them and  
19 they'll be -- they'll be doing it themselves on a pad, but  
20 there will be a person there if they have clarifying  
21 questions they want to ask.

22           CHAIRPERSON SCHWARZMAN: Is that it Jenny?

23           Carl, you had a Question.

24           PANEL MEMBER CRANOR: Let me ask a question.

25           It's beyond -- it's beyond your purview, but something

1 jumped out at me. And there's a public health issue here  
2 beyond contamination. And you've indicated that some of  
3 these people are carrying certainly higher concentrations  
4 of mercury in their bodies. Philippe Grandjean and a  
5 team - he's from Denmark and Harvard - has identified  
6 susceptibility genes for mercury.

7 And he says I think it's something like about  
8 either eight percent or 1/8th of people have this gene.  
9 So if you could hook up your concentrations, and then  
10 somebody find the -- do the blood work for the gene, you  
11 may have a subpopulation of these people that are at  
12 higher risk, which would be an important point to  
13 intervene. I know it's beyond biomonitoring, but this is  
14 important -- and important first step.

15 DR. WU: I agree that it's very important. And I  
16 also agree that it's beyond the purview of our Program.

17 (Laughter.)

18 DR. WU: That would be great to do. We do,  
19 actually in our informed consent, specify that we will not  
20 be doing genetic work, because one of the -- one of the  
21 concerns when people sign up for studies and give blood,  
22 you know, the biological media, they are concerned with  
23 what the government will do with their -- with their  
24 samples

25 PANEL MEMBER CRANOR: Of course.

1 DR. WU: So we very specifically eliminate  
2 genetic work from our --

3 PANEL MEMBER CRANOR: Right, but you haven't done  
4 that. But you could go back -- I mean, I don't know to  
5 what extent biomonitoring.

6 DR. WU: Not with these samples.

7 PANEL MEMBER CRANOR: Go back and identify the  
8 people and say how about this further step. But it's  
9 beyond your purview, I realize that. But it really jumps  
10 out that we know both susceptibility genes, and we now  
11 have higher concentrations.

12 DR. WU: Well, I think this kind of work and the  
13 data that comes out of this, it's a great basis for  
14 illustration of why it's so important, and that there's  
15 this overlap of susceptibility that we should be thinking  
16 about. But having this data just illustrating that there  
17 are so many people with high levels of mercury is  
18 definitely a piece of that.

19 And so I would -- I would expect that other  
20 researchers will take this and -- especially with  
21 something like the Asian population, where we have so many  
22 people with high levels of mercury --

23 PANEL MEMBER CRANOR: Right.

24 DR. WU: -- maybe do work in that community as  
25 well.

1 CHAIRPERSON SCHWARZMAN: And we do still have a  
2 little time. Yeah, any additional questions? Did you  
3 have any?

4 PANEL MEMBER LUDERER: (Nods head.)

5 CHAIRPERSON SCHWARZMAN: Yes, please, go ahead.

6 PANEL MEMBER LUDERER: Is it on?

7 It's on? Okay. You can hear me?

8 You can hear me.

9 (Laughter.)

10 PANEL MEMBER LUDERER: Thank you. I'm really  
11 excited about the CARE Study starting and also looking  
12 forward to all the presentations today.

13 And one thing as I was thinking about this, you  
14 know, getting ready to come here that I think is going to  
15 be maybe a recurring theme today, but that's, you know,  
16 I'm wondering about the sort of the tension between doing  
17 this representative study, and then, you know, really  
18 wanting to have different community groups, environmental  
19 justice groups, environmental groups, other, you know,  
20 community groups participating who may be very interested  
21 in biomonitoring, but with a -- you know with a study  
22 where you're measuring -- biomonitoring 500 people in all  
23 of L.A. County. Obviously, you're not going to have  
24 community-specific level information.

25 And so, you know, I assume we'll be hearing more

1 today, but I hope we will about how you'll -- the program  
2 can use this CARE Study to, you know, strengthen and  
3 expand ties with different communities, and environmental  
4 justice groups, and other groups that may, down the road,  
5 lead to opportunities, you know, to do more  
6 community-specific biomonitoring studies like you have  
7 done already, and hopefully we will do more of.

8 DR. WU: Sure. It's definitely a challenge. We  
9 have a lot of community partners who are very excited  
10 about everyone in their community getting biomonitored.  
11 And so we've had to be very clear this is a regional  
12 representation, that not everyone in your neighborhood  
13 will be biomonitored.

14 But we would love to be able to offer both, and  
15 both community-specific and this representative work.  
16 They're both important pieces of it. But we hope this was  
17 a backdrop to -- first of all, there's all this education  
18 and awareness work that will be happening, but also this  
19 will give us a comparison group, where when we do go back  
20 and do community studies, now we have some information --  
21 California-specific information to compare it to.

22 CHAIRPERSON SCHWARZMAN: Yeah, José, go ahead.

23 PANEL MEMBER SUÁREZ: Yeah. Just a couple of  
24 quick questions. One is a little bit more about the --

25 MS. HOOVER: A little closer.

1           PANEL MEMBER SUÁREZ: -- slightly a little bit  
2 about the details about how many people you're going to be  
3 sending out the invitations for and how many would you  
4 roughly expect to get back? Kind of a basic question.

5           And the other one is regarding the online survey.  
6 So I think given the budget, I think that's -- it's a  
7 logical way to do it.

8           The only concern could be that you could  
9 potentially be weeding out certain groups of people that  
10 may not have access to online -- to computers even. We're  
11 talking about socioeconomic status or education level. So  
12 that could be a potential source of selection bias, if you  
13 may.

14           So it's something for you to think about. Maybe  
15 you have thought about it already. What are your  
16 thoughts?

17           DR. WU: Okay. So the postcard is going out to  
18 approximately 65,000 households. For Project BEST, I  
19 think we had six percent response rate, and that was  
20 coming from Kaiser, their medical provider. So I don't  
21 expect a higher than one percent response rate. Really,  
22 our expectations are modest, but I think it's important  
23 for us to try this method of recruitment.

24           It will also get to people who are not  
25 necessarily involved in any kind of community

1 organizations. And I think that is an important aspect of  
2 it.

3 As far as the online survey, we do have a paper  
4 option for participants. So if you fill out the survey,  
5 and I understand the online -- the prescreening is mostly  
6 online. If somebody gets their postcard there is a phone  
7 number on it. And so you could call us and say, you know,  
8 I really want to do this, but I don't have a computer, and  
9 we will do your prescreening survey on thea phone.

10 Once you're in that prescreening -- and I'm  
11 sorry, we will also be at different events with a laptop  
12 and help people fill out the prescreening survey. Once  
13 you are selected, a letter comes out, and whether --  
14 whether you selected Internet or paper on your  
15 pre-screening survey, you will get either a packet through  
16 email, which will link you to all of these online things,  
17 or you will actually get a paper packet, which has the  
18 survey, the informed consent, and your -- how to make an  
19 appointment all on paper. And then our interaction is on  
20 the phone.

21 For our purposes, the online is way easier. It  
22 involves much less staff time, but we have -- we're ready  
23 to handle people by phone and paper, if necessary. For  
24 people who want to -- you didn't ask this, but I'm going  
25 to answer it any.

1 (Laughter.)

2 DR. WU: For people who want to take the study in  
3 a different language, we do have that capability as well.  
4 So they will get a letter in the language of choice  
5 describing the study. And then when our phlebotomist goes  
6 to their home, we'll have somebody in language call and  
7 make an appointment, and they will end up doing the survey  
8 and the phlebotomy and urine collection with an  
9 interpreter present. And that will be explained to them  
10 in the letter in their language.

11 CHAIRPERSON SCHWARZMAN: So just as a reminder,  
12 at the end of all the morning talks, we'll have a  
13 30-minute discussion and comment section. So I appreciate  
14 that these questions have all been questions. And we just  
15 have a couple minutes, so I'm going to take my Chair's  
16 prerogative and ask you a question that goes back to the  
17 budget issues that you raised.

18 This is -- I'm sure this is something you've  
19 already thought of, but I wanted to hear your thoughts  
20 about the potential for accessing funding available to  
21 underserved or that in some way benefit disproportionately  
22 impacted communities under AB 32. And I know that it's --  
23 there's a little bit of a stretch to AB 32 money, but not  
24 if we think about things like diesel exposure. And I  
25 wondered how you've been thinking about that, as a

1 possible source of funding?

2 DR. WU: Honestly, I have not given it a whole  
3 lot of thought. We do look for different pots of money  
4 and how they might apply to biomonitoring. I can't  
5 address AB 32, but for example Prop 99 money, which is  
6 related to -- anything that's related to pulmonary  
7 function. It's tobacco money. And so we are using money  
8 to do some diesel work. And actually that is an add-on  
9 that we hope to include on CARE.

10 So we're are always kind of scanning the  
11 different pots of money that are available.

12 CHAIRPERSON SCHWARZMAN: That's some I would  
13 recommend, because there is a statutory requirement that I  
14 think as much as a third of the funds that come in under  
15 cap and trade are required to benefit disproportionately  
16 affected communities. It may be an opportunity.

17 DR. WU: Okay. Thanks.

18 CHAIRPERSON SCHWARZMAN: So with that, I want to  
19 move -- unless we have other specific questions, we'll  
20 have more chance discussion.

21 MS. KAUFFMAN: Do we have time for an audience  
22 question?

23 CHAIRPERSON SCHWARZMAN: Yes. Thanks.

24 So this comes from Nancy Buer -- yes, go ahead.

25 And Nancy is from Breast Cancer Prevention

1 Partners.

2 MS. BUERMEYER: Great. Thank you very much for  
3 the opportunity. I appreciate it. And thanks for the  
4 presentation. As always, great.

5 I'm fascinated to spend more time talking about  
6 the ACE Study, but I just had a couple of quick questions.  
7 You mentioned the community meeting, was that just for  
8 participants or did you invite the broader community in to  
9 that discussion, so that they could understand their  
10 potential risks? And was there any takeaway in terms of  
11 actions people could take and any indication of their  
12 interest in taking those actions to reduce those  
13 exposures?

14 DR. WU: So the meeting was open to the broader  
15 community. And we did advertise it through APA's general  
16 membership. And I actually don't know what percentage of  
17 attendees were participants or not. We didn't ask people  
18 whether they were.

19 As far as actions, we focused on individual  
20 actions how you, as an individual, could take this data  
21 and respond, and by reducing your exposures. And I think  
22 APA though, as an advocacy group, we had some  
23 conversations about things they might with the  
24 information, how they might, as a community respond.

25 MS. BUERMEYER: Thanks.

1 CHAIRPERSON SCHWARZMAN: Thank you.

2 Okay. I want to take this moment to introduce  
3 Duyen Kauffman who's going to talk to us about the Diesel  
4 Exposure Project -- East Bay Diesel Exposure Project.

5 Duyen Kauffman is the Health Program Specialist  
6 in OEHHA's Safer Alternatives Assessment and Biomonitoring  
7 Section. And she will be describing the East Bay Diesel  
8 Exposure Project. Recruitment for this project is slated  
9 to begin in Oakland, Richmond, and San Pablo in the next  
10 few weeks, which is exciting.

11 (Thereupon an overhead presentation was  
12 presented as follows.)

13 MS. KAUFFMAN: Thank you, Meg.

14 Am I on?

15 I'll just hold it. I will be one with the  
16 microphone.

17 (Laughter.)

18 MS. KAUFFMAN: Hello, members of the Panel and  
19 audience. Today, I'm going to talk about the East Bay  
20 Diesel Exposure Project.

21 --o0o--

22 MS. KAUFFMAN: Okay. There we go. Thank you.

23 So the East Bay Diesel Exposure Project is a  
24 collaboration between Biomonitoring California, the Center  
25 for Environmental Research and Children's Health at UC

1 Berkeley, and the University of Washington.

2 Asa Bradman at CERCH is the principal  
3 investigator, and Chris Simpson's lab at the University of  
4 Washington will be doing the laboratory analyses of the  
5 samples we will be collecting.

6 --o0o--

7 MS. KAUFFMAN: So our project goals are to  
8 directly assess exposures to diesel exhaust in selected  
9 East Bay communities in the San Francisco Bay Area,  
10 compare levels of diesel biomarkers in child-parent pairs  
11 to increase understanding of exposure patterns within a  
12 household and across age groups, and collect samples in  
13 winter when air quality is generally worse and spring to  
14 look at seasonal differences in exposure to diesel  
15 exhaust.

16 --o0o--

17 MS. KAUFFMAN: Should I point it at that?

18 Okay. There we go. All right. Okay. A little  
19 delay.

20 And continuing with project goals. We intend to  
21 further evaluate 1-nitropyrene as a marker for diesel  
22 exhaust exposure. So I'd just like to explain a little  
23 bit: 1-NP is just one chemical component of diesel  
24 exhaust, which contains a complex mixture of thousands of  
25 chemicals present in vapor and particle form.



1 and protocols, I'd like to talk little bit about how we  
2 identified neighborhoods for the study.

3 --o0o--

4 MS. KAUFFMAN: We wanted to include people  
5 primarily from neighborhoods with high diesel exhaust  
6 exposure, but we also wanted to see how their levels  
7 compared to people with lower exposures to diesel exhaust.

8 So we looked at --

9 --o0o--

10 MS. KAUFFMAN: -- CalEnviroScreen's diesel  
11 particulate matter indicator. This indicator is based on  
12 data from the California Air Resources Board, or CARB,  
13 which collects estimates of diesel particulate matter  
14 emissions from sources

15 The diesel particulate matter indicator uses  
16 CARB's data on emissions from onroad sources like trucks  
17 and buses, and off-road sources, like ships and trains.  
18 So the higher the score, the worst the diesel particulate  
19 matter is in the air. And you can see from this map at -  
20 want to point - that Oakland and particularly West Oakland  
21 there in orange and red has some of the highest scores in  
22 the East Bay, whereas Richmond up here has a lower range  
23 from blue and light green to orange and then San Pablo up  
24 here is even lower in the blue to light green range.

25 --o0o--

1 MS. KAUFFMAN: We also looked at diesel truck  
2 pattern traffic on nearby highways and major routes  
3 through neighborhoods in the East Bay.

4 And we looked at local air pollution mapping, for  
5 example, this recent study that some of you may have seen  
6 written up by Joshua Apte and others that used Google  
7 street-view cars to measure and map air pollution in a  
8 30-square kilometer area of Oakland.

9 --o0o--

10 MS. KAUFFMAN: We also considered additional  
11 stressors as factors for selecting locations. We went  
12 back to CalEnviroScreen and pulled up maps like this one,  
13 but looking at the housing burden and poverty indicators  
14 so that we'll be able to recruit roughly the same  
15 demographics in each of the areas that will be involved in  
16 the project.

17 --o0o--

18 MS. KAUFFMAN: So now that we've identified some  
19 neighborhoods, we will work with these communities and  
20 introduce the project to local organizations, schools, and  
21 agencies and enlist their help with recruitment. So  
22 groups to engage include the West Oakland Environmental  
23 Indicators Project, a very well known and respected  
24 environmental justice organization that's worked a lot on  
25 air quality in Oakland, including the Google mapping

1 project I just mentioned. And we have already met with  
2 Ms. Margaret Gordon and Brian Beveridge who are  
3 co-directors of West Oakland EIP. And we're looking  
4 forward to working with them and involving their community  
5 in this project.

6 We'd also like to work with schools that are  
7 currently involved in air monitoring studies. There's the  
8 BEACO2N or Berkeley Atmospheric CO2 Observation Network  
9 led by Ron Cohen, an atmospheric chemist at U.C. Berkeley,  
10 and several other air monitoring studies networks that  
11 have set up at schools in the East Bay. So we're planning  
12 to connect with some of these schools to see if some of  
13 their families would be interested in participating in our  
14 projects.

15 We may also recruit through the Northern  
16 California Breathmobile sites. This is a mobile asthma  
17 management program, so essentially mobile asthma clinics  
18 that visit pre-schools an K through 12 schools and  
19 community centers mostly in Alameda County, and West  
20 Contra Costa.

21 And then through our PI, Asa Bradman, and his  
22 work at CERCH, we also have relationships with some YMCA  
23 child care centers in Contra Costa County and we're hoping  
24 to recruit participants through those sites as well.

25 --o0o--

1 MS. KAUFFMAN: Okay. Now, onto study design.

2 As our project name indicates, we will focus on  
3 diesel exposures in residents of the East Bay,  
4 specifically Oakland, Richmond, and San Pablo, which I  
5 mentioned have a range -- are predicted to have a range of  
6 diesel exhaust exposures according to CalEnviroScreen. We  
7 will recruit 50 child-parent pairs. So one parent and one  
8 child per family with the child already toilet trained and  
9 between the ages of three and six.

10 There will be two sampling events for each  
11 household, one in the winter, 2017 - it's coming up -  
12 2018. And during that -- this sampling event, we will  
13 collect urine from the parent and the child, an indoor air  
14 sample, and a dust sample from the vacuum bag in the home.  
15 And a second sampling event in spring 2018 during which  
16 we'll collect urine samples from the parent and child and  
17 indoor air samples.

18 --o0o--

19 MS. KAUFFMAN: Okay. So this is what the data  
20 collection will look like. The sampling events will  
21 consist of a home visit -- first home visit on what we're  
22 calling day one, and that will usually be a Sunday,  
23 Monday, or a Tuesday. And we -- after obtaining written  
24 informed consent, we will administer an exposure  
25 questionnaire. So that will cover things like housing

1 characteristics, so what kind of stove do they have? Is  
2 there an attached garage? Do diesel cars park in there?  
3 Daily activities, including occupation, use of diesel  
4 equipment or vehicles at work; house cleaning practices,  
5 like sweeping and vacuuming; and building systems, so what  
6 kind of heating system is there, do they use portable air  
7 filters, things like that.

8           And after that, we'll do a walk-through of the  
9 home and look at things, like their heating system, the  
10 type of furnace, if possible, the portable air filter if  
11 they use one. We'll look at the vacuum and record  
12 information about those items.

13           We will then give the parent two GPS data  
14 loggers, one for the child and one for the parent, and  
15 with instructions on how to use them for the following  
16 three days. And as you can see from the picture, it's  
17 fairly small, like it could be put in a coat pocket, or a  
18 purse, or a backpack, or something that will be with the  
19 person for most of the day or throughout the day. And the  
20 device will record their location every -- the GPS  
21 coordinates every few minutes, but it's not a tracking  
22 device. So it's not broadcasting location. We can't  
23 track people through them. We just, when we retrieve the  
24 device, we can download the information. It's a  
25 historical record of where they've been.

1           And then as a back-up, and a complement to the  
2 GPS loggers, which can fail, we will give the parent two  
3 24-hour activity diaries for -- one for the child and one  
4 for the parent and we'll ask the parent to fill these out  
5 for him or herself and the child over the next three days.

6           We also set up a black carbon sensor in the  
7 participants' homes to collect a sample of their indoor  
8 air for later analysis. Sensors will also collect data in  
9 real-time on black carbon, which is a sooty material  
10 released into the air from diesel engines and other  
11 sources and can end up in homes.

12           And finally, we'll collect their vacuum bag or if  
13 they have a bagless vacuum, the contents of their vacuum,  
14 to get a convenience sample of their house dust.

15                           --o0o--

16           MS. KAUFFMAN: Okay. And so that was day one.

17           Day four, we'll come back for home visit number  
18 two, so three days later, and that will be a Wednesday,  
19 Thursday, or Friday, depending on when the first visit  
20 was. And we will administer a short follow-up  
21 questionnaire that asks questions about the parent's and  
22 child's specific activities over the last three days,  
23 including things like whether or not they actually used  
24 the heat during that time, or a fireplace, or if they  
25 grilled foods.

1           At this visit, we will also collect the activity  
2 diaries. And so this is an excerpt from the child  
3 activity diary, and you can see the type of information  
4 we'll be collecting. So was the child -- if the child was  
5 at home, was she indoors or outdoors, in transit during  
6 that hour, walking, biking, BART, car or bus. If in a  
7 vehicle, was it a diesel or not, and then time away from  
8 home.

9           And the parent activity diary is very similar.  
10 It just has different questions for away from home,  
11 different options like being at work. And then both of  
12 the activity diaries have these additional questions, you  
13 know, asking any time during the previous 24 hours was  
14 you -- were you or was your child near any of the  
15 following: Like fireplace; trash; fire; gas, wood or  
16 charcoal cooking; or cigarettes or other tobacco products.

17           At this visit, we are also collecting the GPS  
18 data loggers, the black carbon sensor, and then lastly the  
19 urine samples from the child and the parent. And at that  
20 time, the family will receive a \$20 gift card to a local  
21 store to thank them for their time and participation.

22                           --o0o--

23           MS. KAUFFMAN: And out of these 50 families,  
24 we'll also -- we're hoping to recruit a subset of up to 15  
25 families to collect daily urine samples for four days, so

1 one sample every day on days one through four. So for  
2 these families we'll leave urine collection supplies and  
3 lend them a mini refrigerator, so they can store their  
4 samples until we can pick them up at the latest on day  
5 four, when we return to their home for the second visit.

6 And then this whole process, home visits on days  
7 one and four will be repeated with the same families about  
8 four months later in the spring.

9 --o0o--

10 MS. KAUFFMAN: So what are we going to do with  
11 all these samples?

12 In urine, Chris Simpson's lab will measure two  
13 metabolites of 1-nitropyrene, 1-NP,  
14 6-hydroxy-1-nitropyrene. And 8-hydroxy-1-nitropyrene.  
15 And our own lab here, the environmental, the Environmental  
16 Heath Laboratory at DPH will measure creatinine and  
17 specific gravity to adjust for how concentrated the  
18 different urine samples are.

19 In the dust from the participant's vacuums, or  
20 vacuum bags, Chris's lab will measure 1-nitropyrene  
21 itself. And in the air, he will also measure  
22 1-nitropyrene using the filters from the black carbon  
23 sensors. And these are low-cost compact sensors that were  
24 developed by Tom Kirchstetter at LBL and were recently  
25 used in his 100 by 100 West Oakland Community Air Quality

1 Study, which built and operated a network of a hundred of  
2 these black carbon sensors for 100 days.

3 --o0o--

4 MS. KAUFFMAN: Okay. And once we have all these  
5 results, in the accordance with Biomonitoring California's  
6 mandate, we will return individual biomonitoring results  
7 to participants who request them.

8 These are informational packets. So they contain  
9 urine results for the parent and the child in comparison  
10 to the other parents and the children in the -- in the  
11 study. And then fact sheets on diesel exhaust and  
12 1-nitropyrene. So these fact sheets will include  
13 information about what the potential health effects of  
14 1-NP and the whole mixture of diesel exhaust are, and  
15 possible ways to reduce exposure to them.

16 If people are very concerned about the results or  
17 have questions that aren't answered by the packets, we  
18 will also provide contact information so they can receive  
19 that kind of support from a health educator and a  
20 physician on our staff.

21 We can also offer our staff physician as a  
22 resource to their personal physician or their  
23 pediatrician, if needed.

24 An then we'll return a separate packet of the  
25 home's environmental sampling results that includes

1 analysis of the dust from the vacuum bag, and the filters  
2 from the black carbon sensor that was placed in their  
3 home.

4 --o0o--

5 MS. KAUFFMAN: Okay. And then in terms of other  
6 follow up, we intend to conduct community meetings to  
7 present overall study results so that we can share the  
8 project's findings with the -- more widely in the  
9 community. We will share our findings on our website  
10 through our online results database, and on the East Bay  
11 Diesel Project page.

12 We'll also prepare scientific publications to  
13 share our study design and findings with others  
14 researchers. And we are -- we intend to identify ways to  
15 support exposure reduction to diesel exhaust. And this is  
16 not only limited to personal action, because that can only  
17 go so far when it comes to diesel exhaust. So it will  
18 include other ways, with, you know, potentially larger  
19 impacts.

20 So maybe informing best practices at schools  
21 where kids spend a lot of time, or informing design or  
22 location of walking paths or parks, and also supporting  
23 policy changes that can reduce diesel exhaust exposure for  
24 everyone.

25 We'll also maintain relationships with community

1 organizations involved in the project, and make sure we're  
2 responsive to the impact of our findings on the community  
3 and provide support as needed.

4 --o0o--

5 MS. KAUFFMAN: Woops.

6 So the next steps are to obtain official approval  
7 from both IRBs. We actually just got approval on Tuesday  
8 from the UC Berkeley IRB. So we're -- we're hoping to get  
9 official written approval from the State Committee for  
10 Protection of Human Subjects very soon.

11 And then once we are officially approved, we can  
12 then launch outreach and recruitment activities directly  
13 with potential participants, and - it's very ambitious,  
14 but we're -- we are hoping to begin home visits in late  
15 November, early December, so ideally the week after  
16 Thanksgiving.

17 (Laughter.)

18 MS. KAUFFMAN: And with that, I'm happy to take  
19 your questions.

20 CHAIRPERSON SCHWARZMAN: Thank you so much,  
21 Duyen. Questions for Duyen now. We have chance for  
22 discussion later, but questions now.

23 Jenny, go ahead.

24 PANEL MEMBER QUINTANA: Hi. I have a couple of  
25 just minor points and then a question about how to

1 communicate to the families that they can mitigate their  
2 risk, if you do find high levels. So my minor points are  
3 just -- in a way, it's a shame. I know it's always the  
4 budget, but it's kind of a shame that you have only  
5 measures of indoor pollution when your other metrics are  
6 all ambient or outside or local level outside pollution.  
7 So I don't know if in a subset of homes, you could maybe  
8 do the out -- the black carbon outside as well as inside,  
9 because it might link those two data sets a little bit  
10 better possibly.

11 MS. KAUFFMAN: Yes. We may look into that.  
12 These sensors have been deployed outside. There's an  
13 issue with pumps overheating, and, you know, placement  
14 outside. So it's possible we can look into doing that as  
15 well.

16 PANEL MEMBER QUINTANA: And then the other one  
17 was with a different population, with the National  
18 Children's Study in San Diego about half of our  
19 participants did not have a vacuum, which would -- because  
20 we had also planned to do vacuum bag dust -- or vacuum  
21 dust.

22 MS. KAUFFMAN: Okay.

23 PANEL MEMBER QUINTANA: And so that was --  
24 sometimes they'd have one vacuum they would share among a  
25 lot of families.

1 MS. KAUFFMAN: Oh, okay.

2 PANEL MEMBER QUINTANA: And so you would  
3 actually -- but that you would end up looking at dust that  
4 wasn't just the home. And so it's just some more piece of  
5 advice to have a back-up method that you can collect your  
6 dust as a possibility and --

7 MS. KAUFFMAN: Okay. That was one of our  
8 eligibility criteria, but we may need to consider that if  
9 so many people don't have their own vacuums.

10 PANEL MEMBER QUINTANA: Well, it's just a  
11 thought.

12 MS. KAUFFMAN: Yeah. Thanks.

13 PANEL MEMBER QUINTANA: And then I agree that you  
14 could talk about policy changes, and better route to walk  
15 to school or something. But have you thought about  
16 something more immediate like I know Lawrence-Berkeley  
17 Indoor Air Group has been looking at, in the past, the  
18 particulate filtration units, HEPA filters for the home or  
19 something --

20 MS. KAUFFMAN: Yes.

21 PANEL MEMBER QUINTANA: -- you could directly  
22 give them, because 1-nitropyrene, unlike some other things  
23 we measure, is very directly -- it's toxic. It's, you  
24 know, a mutagen and it's something where I can see the  
25 participants might get upset, unless there's something

1 they could immediately do.

2 MS. KAUFFMAN: Right.

3 PANEL MEMBER QUINTANA: And it would be nice if  
4 there were funding to -- even from partners, you know.

5 MS. KAUFFMAN: Yes, we are looking into that.  
6 And we were looking about -- you know, getting someone to  
7 donate.

8 PANEL MEMBER QUINTANA: Yeah, to provide those,  
9 Home Depot or whatever or something.

10 (Laughter.)

11 MS. KAUFFMAN: Right. Yeah, right. We thought  
12 Home Depot can, you know, donate indoor plants and, you  
13 know, maybe outdoor plants.

14 PANEL MEMBER QUINTANA: Or something, yeah.

15 MS. KAUFFMAN: Right, it's like --

16 PANEL MEMBER QUINTANA: Or the filtration units,  
17 HEPA filtration units.

18 MS. KAUFFMAN: Right or air -- in-home air  
19 purifiers that they can use, yeah. So yeah, thanks for  
20 those.

21 CHAIRPERSON SCHWARZMAN: Yeah, Carl, go ahead.

22 PANEL MEMBER CRANOR: Just a really quick  
23 question. Nitropyrene, is that a unique identifier for  
24 diesel dust -- diesel exposure?

25 MS. KAUFFMAN: It's better than other things that

1 have been looked at in the past. It is -- it is -- if  
2 there is a source of diesel exhaust exposure, and 1-NP  
3 there is usually a source of diesel.

4 PANEL MEMBER CRANOR: The way I would think about  
5 it is if you have diesel exposure, this shows up.

6 MS. KAUFFMAN: Yes.

7 PANEL MEMBER CRANOR: Are there other things that  
8 will make that show up in the blood?

9 MS. KAUFFMAN: Oh, so we're collecting urine  
10 samples.

11 PANEL MEMBER CRANOR: Oh, sorry, yeah.

12 MS. KAUFFMAN: And it's possible that it's formed  
13 in the environment from smoking and other sources of  
14 combustion.

15 PANEL MEMBER CRANOR: Okay. Thank you.

16 PANEL MEMBER SUÁREZ: So how specific, so it's --

17 MS. HOOVER: Microphone

18 PANEL MEMBER SUÁREZ: So not too -- not that  
19 specific, is that what I'm understanding?

20 MS. KAUFFMAN: It's pretty specific.

21 (Laughter.)

22 PANEL MEMBER SUÁREZ: Okay. Just making sure.

23 PANEL MEMBER QUINTANA: Yeah. Asa, might  
24 comment, but it is fairly specific. In cigarette smoke  
25 very low levels, you know, so and --

1 MS. KAUFFMAN: Right. Chris Simpson gave a  
2 presentation at the SGP that I missed unfortunately, but  
3 many of you may have been there. But, yes, it posted on  
4 our website.

5 PANEL MEMBER SUÁREZ: If I may, I have a couple  
6 of questions. I didn't see in your presentation, what's  
7 your target sample size?

8 MS. KAUFFMAN: 100, so 50 child-parent pairs.

9 PANEL MEMBER SUÁREZ: Oh, 50 child-parent. Okay.

10 MS. KAUFFMAN: So one parent and one child.

11 PANEL MEMBER SUÁREZ: So just a couple basic  
12 methodologic questions. Why do you want to include the  
13 GPS tracking, for one? The other one is why the spring  
14 versus fall?

15 MS. KAUFFMAN: Oh, okay. So we -- the GPS is  
16 to -- you know, people -- we have their GPS coordinates at  
17 their homes, so people don't necessarily spend all of  
18 their time at homes -- in their they're homes, so we  
19 wanted to get an idea. I mean, we have the time activity  
20 diaries, but, you know, we have this -- a way to -- we'll  
21 ask the address of preschool, but we just want to see, you  
22 know, what time is actually being spent away from the home  
23 and how that plays into their exposure.

24 PANEL MEMBER SUÁREZ: Okay. So are you going to  
25 use it to track -- have you considered even outdoor time,

1 meaning exercise time --

2 MS. KAUFFMAN: Yes, right.

3 PANEL MEMBER SUÁREZ: -- which you can get from  
4 GPS tracking.

5 MS. KAUFFMAN: We do have -- so that's a -- we  
6 have that -- questions about that specifically in the  
7 follow-up questionnaire on day four, and then the time  
8 activity also asks for, you know, indoor or outdoor.

9 PANEL MEMBER SUÁREZ: Yeah, because ironically,  
10 you know, we know that exercise is fantastic for us.

11 MS. KAUFFMAN: Right.

12 PANEL MEMBER SUÁREZ: But if you are exercising  
13 outdoors, where there's a lot of smog there --

14 MS. KAUFFMAN: Right.

15 PANEL MEMBER SUÁREZ: -- they're going to be  
16 having a lot of more exposure to diesel.

17 MS. KAUFFMAN: Yes, and we intend to, you know,  
18 include those concept messages in our educational  
19 materials. You know, if you -- if you have the luxury of  
20 choosing what time of day you go outside and exercise, you  
21 know, maybe you can change your choices a little better.

22 PANEL MEMBER SUÁREZ: Okay. But -- so you are  
23 looking at that specifically, the things --

24 MS. KAUFFMAN: Yes. Right. So, for example,  
25 when the parent is filling out the activity diary for the

1 child, but when they're at school, they don't necessarily,  
2 unless they're a helicopter parent, know exact --

3 (Laughter.)

4 MS. KAUFFMAN: -- every minute whether a child is  
5 inside or outside, so we just -- you know, we'll know  
6 they're at the school, and, you know, maybe we can see if  
7 the field is farther away from the school, we can see that  
8 they, you know, spend a certain amount of time at the  
9 field as opposed to indoors at the school.

10 PANEL MEMBER SUÁREZ: Do you have -- are you  
11 working with some people that are doing -- that are pretty  
12 good with GPS information, because, I mean, you're getting  
13 a ton of information of GPS.

14 MS. KAUFFMAN: Yes, we are.

15 PANEL MEMBER SUÁREZ: We're talking about every  
16 second for the whole duration of the visit those four  
17 days, right.

18 MS. KAUFFMAN: Yes.

19 PANEL MEMBER SUÁREZ: Just to make sure that you  
20 can actually filter out? You have the capabilities with  
21 regard to that?

22 MS. KAUFFMAN: Yes, right. We do have the  
23 technology. We have the capability, at UC Berkeley and  
24 also at OEHHA, yes. Thank you.

25 PANEL MEMBER SUÁREZ: Oh, yeah, and then the

1 spring versus fall.

2 MS. KAUFFMAN: Oh, yeah. So spring versus fall.  
3 So we looked at, you know, emissions inventories, and  
4 we -- you know, it really looked like winter was the  
5 worst, and then the spring, you know, March, April was  
6 significantly better. So we thought that would be a good  
7 season to compare. And we also just launched timing-wise,  
8 this is -- you know, we have -- we're just going to the  
9 field now. But yeah, spring is based on the inventory.  
10 It's really a cleaner time to look at.

11 CHAIRPERSON SCHWARZMAN: Did you have a  
12 questions, Ulrike?

13 PANEL MEMBER LUDERER: Yes. I do have one -- I  
14 mean, related to the -- is it on? -- related to the GPS.  
15 Closer, is this better?

16 Okay. So obviously you're -- as we just said --  
17 that we were just talking about, you're going to have this  
18 very rich data set of where people are. Are you thinking  
19 at all about possibly using those data to be able to take  
20 air monitoring data, and do, you know, exposure modeling  
21 and come up with individual level of exposure estimates  
22 and try to see how that relates to the --

23 MS. KAUFFMAN: Yes, yes.

24 (Laughter.)

25 PANEL MEMBER LUDERER: Okay.

1 PANEL MEMBER BARTELL: If I could follow that up  
2 quickly?

3 CHAIRPERSON SCHWARZMAN: Yes, please, Scott.

4 PANEL MEMBER BARTELL: In doing that, one thing  
5 you might consider, if you haven't already, is to -- when  
6 you compile the sort of, you know, CalEnviroScreen  
7 predicted concentrations or measured concentrations with  
8 the time activity to get a measure of sort of cumulative  
9 exposure, you might consider, you know, that the biomarker  
10 is going to reflect really a sort of weighted average of  
11 past exposures with the strongest weights coming from the  
12 most recent exposures.

13 And if you know something about the half-life of  
14 this compound and its excretion, you can sort of get a  
15 sense of what weights to use when you sort of do that  
16 averaging. And that what might be worth considering is  
17 just another way of looking at the data when you get to  
18 that stage of --

19 MS. KAUFFMAN: Okay. Thank you.

20 PANEL MEMBER BARTELL: -- combining those  
21 estimates.

22 MS. KAUFFMAN: Asa is still here. Great. So I  
23 hope he's also taking notes. Yes. Thank you for that.

24 (Laughter.)

25 CHAIRPERSON SCHWARZMAN: I had one question. At

1 risk of -- I really appreciate that -- it's such a cool  
2 study, and I'm really looking forward to it, and you've  
3 thought of so much. And at risk of complicating your  
4 lives, I wonder, maybe Asa -- I'm sure Asa is familiar  
5 with Kathy Hammond's group's work on PAH monitoring. And  
6 I just ask about it, because they have a similar study  
7 that -- not similar in that they're -- they're not looking  
8 at diesel exhaust, but PAHs.

9 But they're doing individual level monitors, GPS  
10 tracking of kids. And I don't know how young they go.  
11 But in any case, I wonder if there's -- if it's at least  
12 worth a conversation, but maybe you've already had it.

13 MS. KAUFFMAN: Yes, yes.

14 CHAIRPERSON SCHWARZMAN: Okay.

15 MS. KAUFFMAN: Asa has.

16 CHAIRPERSON SCHWARZMAN: Great. I don't know if  
17 there's any way that the two studies can inform each  
18 other, or share outreach, or recruitment, or anything like  
19 that?

20 MS. KAUFFMAN: Yes, I think there is.

21 CHAIRPERSON SCHWARZMAN: That's in the works?

22 MS. KAUFFMAN: Yeah.

23 DR. BRADMAN: Yeah, we've talked about that. So  
24 thanks.

25 CHAIRPERSON SCHWARZMAN: Great. Yeah, Mel.

1           PANEL MEMBER KAVANAUGH-LYNCH: So I had two  
2 questions. And I'm -- maybe perhaps missed it, but I  
3 didn't hear how you're recruiting your participants. And  
4 the other question was are you collecting any information  
5 about -- I'm particularly interested in child's asthma,  
6 sort of health indicators of the pairs?

7           MS. KAUFFMAN: No, we're not asking health status  
8 questions. It's, you know, exposure. We're just  
9 assessing their exposure. But the recruitment is  
10 through -- you know, possibly through the Breathmobile.  
11 So the clientele there are people who are getting care for  
12 asthma. You know, there are -- the air monitoring  
13 networks that are set up at schools and, you know,  
14 people's awareness is a little higher there, maybe because  
15 of that.

16           So we're hoping to -- you know, we'll have  
17 recruitment events hopefully with parents and we have  
18 letters we can send out, fliers. And then again West  
19 Oakland EIP, and the YMCA Child care centers, as well.

20           CHAIRPERSON SCHWARZMAN: Nancy, you had a  
21 question.

22           MS. BUERMEYER: Yes, really quickly. And if I  
23 missed it, I apologize. Are you doing any dust samples at  
24 any think of the schools, like a representative school  
25 from each of the information communities?

1 MS. KAUFFMAN: Oh, no. That's an interesting  
2 thought.

3 PANEL MEMBER SUÁREZ: Collect air samples for  
4 that matter.

5 MS. KAUFFMAN: Sorry.

6 PANEL MEMBER SUÁREZ: Or air samples for that  
7 matter.

8 MS. KAUFFMAN: Right. I mean, they -- we  
9 could -- right, we could -- right, get -- there are  
10 many -- sensors set up so we can look at that, yeah -- or  
11 yeah, get their vacuum bag?

12 (Laughter.)

13 MS. BUERMEYER: Or just take vacuum with you.

14 (Laughter.)

15 MS. KAUFFMAN: Offer free vacuuming of the  
16 school, right.

17 (Laughter.)

18 CHAIRPERSON SCHWARZMAN: Oh, Jenny has the last  
19 question. This is better be our last and then we'll move  
20 on.

21 PANEL MEMBER QUINTANA: Okay. A quick comment.  
22 I'm sure Asa Bradman is on top of this, but, you know,  
23 that if you add accelerometry with GPS, there's people  
24 that have linked that to internal dose with lung function.  
25 There's a paper by Charles Rhodes and other people. So

1 that you can maybe add that with a Fitbit or whatever.  
2 I'm sure you've thought of that.

3 But this is a general question. Maybe you'll  
4 bring it up later, maybe for Lauren Zeise, which is a  
5 general question that's come up recently is how AB 617,  
6 which is that new requirement for air monitoring  
7 communities, how this could really partner with California  
8 Biomonitoring.

9 And this is -- this particular study could be a  
10 banner of how to do -- link the two programs, because  
11 there is a requirement for air monitoring in communities  
12 and to look at communities with environmental justice  
13 lens. And it would be very nice to link that to  
14 California Biomonitoring and get the most out of that.  
15 And so that's not really a comment for you so much as for  
16 other people.

17 MS. KAUFFMAN: Okay. Thank you.

18 DIRECTOR ZEISE: Yes I think that's a very nice  
19 suggestion and something to follow-up with the Air  
20 Resources Board on. So appreciate that -- and the  
21 districts.

22 CHAIRPERSON SCHWARZMAN: Okay. We have one final  
23 question.

24 MS. GARCIA: Very quick. It was actually going  
25 to be the exact same comment that I think we should really

1 be thinking about this in coordination with AB 617. I  
2 think it would be extremely useful. And then as a quick  
3 follow up on the schools point. There are a number of  
4 at-home day care centers that are in West Oakland as well  
5 that would be really good to focus on. And I think West  
6 Oakland Environmental Indicators Project is likely aware  
7 of those, but just to explore that too.

8 MS. KAUFFMAN: Yes, they are. We've talked about  
9 those.

10 CHAIRPERSON SCHWARZMAN: Could you just say your  
11 name for the record?

12 MS. GARCIA: Yana Garcia, from CalePA.

13 CHAIRPERSON SCHWARZMAN: Thank you.

14 MS. KAUFFMAN: Oh, thank you.

15 PANEL MEMBER SUÁREZ: I have a very, very quick  
16 question or comment I would say. So if you are partnering  
17 with Breathmobile, and they are -- I mean, they're  
18 actually collecting a lot of respiratory measures, and  
19 phenol, and peak respiratory flow probably at those ages  
20 of the children that you're interested in. That's  
21 probably all the information that we'll get.

22 But if you're recruiting a lot of participants  
23 that automatically, assuming that they will be able --  
24 willing to share the data, which I would guess that they  
25 would be probably open to that, that you can add an

1 additional layer there of potential health impacts, so you  
2 can you look at exposures to diesel, and then also link  
3 those to lung function.

4           So it may be something that you may want to  
5 consider perhaps prioritizing those a little bit more,  
6 assuming that -- I mean, then we start getting into a  
7 whole other thing about generalizability, you know --

8           MS. KAUFFMAN: Right.

9           PANEL MEMBER SUÁREZ: -- depending on where this  
10 Breathmobile sites are going to be deployed. But these  
11 would be another source of potential health outcomes that  
12 you might get for free, pretty much.

13           MS. KAUFFMAN: Right. Yeah, I'm concerned about  
14 PHI and HIPAA and, you know, whether or not people  
15 would -- you know, they'd have to each individually agree,  
16 I think, to share their own health information.

17           PANEL MEMBER SUÁREZ: Right, or -- I mean, right.  
18 So that's something to talk about with Breathmobile --

19           MS. KAUFFMAN: Right, right.

20           PANEL MEMBER SUÁREZ: -- as well, how -- if they  
21 would be interested in being partner like that.

22           MS. KAUFFMAN: Yeah. Okay.

23           PANEL MEMBER SUÁREZ: If you can get additional  
24 health outcome information.

25           MS. KAUFFMAN: Right. Thank you for that.

1           CHAIRPERSON SCHWARZMAN: All right. Is there  
2 something else happening?

3           Okay.

4           MS. KAUFFMAN: I'm going to thank you so much,  
5 yes. Thank you.

6           CHAIRPERSON SCHWARZMAN: Yeah. Thank you so  
7 much, Duyen. Appreciate it.

8           And I want to introduce Deanna Rossi now. So  
9 Deanna is a consultant with Impact Assessment. In  
10 addition to the work she's carried for Biomonitoring  
11 California, she's currently partnering with the San  
12 Leandro Unified School District to integrate air quality  
13 education into the district's curriculum.

14           She is also working with San Diego State  
15 University and other partners on a multi-pronged asthma  
16 research study in Imperial County. And in her former  
17 roles at CDPH, Deanna was Associate Director of the  
18 California Breathing Asthma Program, and led the Health  
19 Impact Assessment Work Group there.

20           She has an M.P.H. from New York University, and  
21 she'll describe today the results of surveys and  
22 interviews with community advocacy and tribal groups  
23 across the State. These were conducted on behalf of  
24 Biomonitoring California to seek input on community  
25 concerns about chemical exposures and biomonitoring

1 priorities. So thank you so much, Deanna for being here  
2 today.

3 She will also be helping us facilitate afternoon  
4 session, but we're glad to have you present this morning.

5 (Thereupon an overhead presentation was  
6 presented as follows.)

7 MS. ROSSI: Great. Thank you, Meg. And can you  
8 guys hear me okay, with this mic?

9 Okay. Wonderful.

10 Okay. Well, good morning. I'm so happy to here  
11 to tell you about the project that my company Impact  
12 Assessment completed earlier this year with the  
13 Biomonitoring Program. And before I get into it too much,  
14 I want to acknowledge my colleagues who worked on the  
15 project alongside me, Ian Walker, Lauren Wohl-Sanchez, and  
16 from the Biomonitoring Program Suzanne Wittwer, Nerissa  
17 Wu, and Robin Christensen who participated in a lot of the  
18 meetings and were able to represent the program.

19 And so we're really grateful to have had this  
20 strong collaboration. We had a short time period, and we  
21 were all hands on deck, and got to meet a lot of people.

22 --o0o--

23 MS. ROSSI: So -- okay. So the project had two  
24 main goals for engaging organizations. One, we wanted to  
25 list -- we wanted to list what the biomonitoring -- or

1 what the environmental concerns were in communities,  
2 environmental justice communities, so we went with -- we  
3 wanted -- so we met with environmental justice  
4 organizations, community organizations, and tribal  
5 organizations to get a sense of what was on their mind,  
6 what their key concerns were be, and priorities. And we  
7 also wanted to learn about how their organizations  
8 operate.

9 We also wanted to lay a foundation for possible  
10 future partnerships with these organizations. So we now  
11 have this nice network of community groups that are  
12 interested in a lot of the same topics that Biomonitoring  
13 California is interested in.

14 --o0o--

15 MS. ROSSI: Okay. So we used two main strategies  
16 for engaging communities. First, we sent out an online  
17 survey. We reached out. We cast a pretty wide net. We  
18 originally had a list of the 146 organizations that we  
19 sent our survey to. And we gathered names of  
20 organizations through partners that we've had on other  
21 projects, people that have applied for CalEPA EJ grants in  
22 recent years, people that are part of the biomonitoring  
23 listserve, and we asked other partners that have  
24 listserves and work in environmental health to share the  
25 survey with their groups as well.

1           And so we wanted to just get, you know, a quick  
2 take of what are the environmental concerns and issues in  
3 each of their communities, who they serve, what are the  
4 demographics of the people that they work with, what is  
5 their geographic span, are they serving a community, a  
6 county, a region, are they statewide?

7           And we also wanted to get a sense of their  
8 capacity to possibly work with biomonitoring in the future  
9 on other projects. So that was a really great opportunity  
10 to get a sense of who's out there.

11           Then we conducted interviews. Group meetings,  
12 sometimes one on one, sometimes we had groups up to about  
13 10 or 12 people altogether, where we had more in-depth  
14 discussions about specific hazards within a community or a  
15 region. And we talked to them -- these organizations  
16 about how they might use biomonitoring findings, if they  
17 ever have before, what was useful to them, and what they  
18 would like to see biomonitoring do to help support the  
19 efforts that they're pursuing in their communities.

20                               --o0o--

21           MS. ROSSI: Okay. So I'll quickly go through a  
22 summary of the surveys that we did, and just tell you who  
23 we -- who we ended up capturing. So we got 48  
24 respondents. It was a little bit lower than what we had  
25 hoped, but we hopefully will still build that up and hear

1 back from more organizations as we continue outreach.

2           A third of the organizations were from the San  
3 Francisco Bay Area. And I think that's just because we  
4 have a lot of networks here. And so they knew us, and  
5 were quick to respond. We had some respondents from  
6 outside California. There are some EJ groups that work  
7 nationally. They do work in California, but their work is  
8 national and so they responded as well, and people  
9 forwarded our surveys, so we didn't have complete control  
10 of who was responding. We heard from a lot of EJ groups,  
11 community based organizations, academic institutions,  
12 tribal organizations, and some local governments.

13                           --o0o--

14           MS. ROSSI: Okay. So what we learned. And I'm  
15 just going to give a quick summary. We are going to be  
16 producing a more comprehensive report. So today is just  
17 giving you a snapshot of what we heard and what we learned  
18 through these two processes.

19           So air quality and water quality were the most  
20 common environmental issues that these organizations are  
21 working towards. And we didn't -- we asked them to list  
22 all of the issues that they work on, and so they're not  
23 exclusive. So they can work on all of these issues, some  
24 just focus on air quality or water quality. We also heard  
25 pesticides and consumer products quite commonly. And then

1 I've listed some other environmental issues that these  
2 organizations work on.

3 --o0o--

4 MS. ROSSI: Okay. We asked about the types of  
5 services they provide. Almost all of them do  
6 environmental education. A good number also do health  
7 education, and host community meetings. A small number  
8 act as referral agencies and send community members to  
9 other social service agencies. And a small number of the  
10 groups we surveyed do cultural and religious gatherings.  
11 We also asked about other services that they provide.  
12 There's a lot of training, capacity building in community,  
13 research and data collection.

14 And so these organizations have very broad  
15 networks. Some of them serve over -- have memberships or  
16 listserves of over a thousand people. Some are a little  
17 bit smaller, but these organizations have a very broad  
18 reach in California, and so we're really glad to have them  
19 as part of this network now.

20 --o0o--

21 MS. ROSSI: Okay. And demographically, they  
22 serve people across all ethnicities. Collectively, they  
23 serve or use 18 languages, and they work with people of  
24 all ages. So some organizations serve children, some  
25 adults, elderly, workers. And so, you know, when the

1 Biomonitoring Program wants to do outreach, and say  
2 they're looking for -- looking to do a study with pregnant  
3 women, they could go to the database and query which  
4 organizations serve pregnant women, and they'll be able to  
5 come up with that list, and have a quick -- quick access  
6 to a network of organizations to possibly partner with it.

7 --o0o--

8 MS. ROSSI: So I'm going to move on to the  
9 interviews and group meetings that we had.

10 All right. So the group meetings again were to  
11 get a little bit more in-depth. The survey is quick.  
12 It's dropdown boxes, check boxes. We didn't give people a  
13 lot of space to really elaborate on what was going on in  
14 their communities. So we use that as a jumping off point  
15 to identify groups, to interview, and to have meetings, so  
16 we could hear a little bit more about their relationship  
17 with biomonitoring, what they know about the studies that  
18 have been done so far, and how they think biomonitoring  
19 can support work going forward.

20 And so this was a great opportunity for my  
21 colleagues and I. We got to travel around California, and  
22 see, and in some cases smell, the environmental  
23 contaminants of concern to people. So I've been working  
24 in Imperial County for quite some time. And doing this  
25 project was the first time I got to visit Salton Sea and







1 MS. ROSSI: But these are the ones that came up  
2 most commonly. So pesticides came up in all eight  
3 regions. Lead was very common. Arsenic and mercury,  
4 PCBs, chromium, and diesel came up in half or more of the  
5 regions. And again, less commonly fracking chemicals, BPA  
6 and phthalates and nitrates came up in a handful of  
7 regions.

8 --o0o--

9 MS. ROSSI: And some people talked about their  
10 health concerns. Cancers. A variety of cancers came up  
11 in five of the eight regions as did asthma. Liver disease  
12 allergies and birth defects came up in two of the regions  
13 each.

14 Okay. So that's a quick big picture of what we  
15 heard, as we moved around California.

16 --o0o--

17 MS. ROSSI: Now, I'm going to just talk about  
18 each region. I'm going to give a quick summary, talk  
19 about some of the concerns, some of the sites, pollution  
20 sources that were raised. Again, it's not everything in  
21 these regions. It's just based on the people that we  
22 talked to.

23 And then we ask people, hey, what do you think  
24 biomonitoring can do to help you advance your work. And  
25 how do you see biomonitoring findings being helpful to

1 you. And so I'll share those ideas and recommendations as  
2 well.

3           And almost everyone we talked to said, hey, it  
4 would be really great if you could study this chemical.  
5 And so we've listed those as well. And, of course, you  
6 know, if funding was never ending, I'm sure the Program  
7 would love to do all of that. But, you know, we're  
8 sharing it just to hear what some of the priorities were.  
9 And we did explain to these organizations that we didn't  
10 have the ability to just add a list of chemicals to  
11 studies, but that we would be sharing this with the  
12 Program

13           Okay. So in north coast, again this is north --  
14 Marin and north, and then above Sacramento area, we mostly  
15 met with tribal organizations in the north coast. And so  
16 we heard a lot of the issues that were of concern to these  
17 groups. We met with tribal environmental health leaders,  
18 so they were very knowledgeable about environmental health  
19 and hazards in their communities.

20           We heard about occupational exposure --  
21 exposures. Wood mills. I believe this is the only  
22 community where we heard about wood mills, and their  
23 exposures. PG&E plants, radioactive materials, and blue  
24 green algae. I believe this is the only region where we  
25 heard about blue green algae as being a primary concern.



1 going to move into the San Francisco Bay, where we are  
2 today. And some of the things we heard in San Francisco,  
3 we heard about the refineries, the Port of Oakland and its  
4 related diesel and truck traffic. There's excessive car  
5 traffic in the Bay Area as well.

6 And in San Francisco, we heard about the power  
7 plants and cement recycling plant in Bayview-Hunters  
8 Point. We heard about fish contamination from San  
9 Francisco Bay fish, and we heard about nail salons and  
10 their contaminants in this community.

11 --o0o--

12 MS. ROSSI: So one of the things that came up in  
13 a few places as we traveled is that we heard some issues  
14 from EJ communities or EJ organizations about lack of  
15 trust with State agencies. And so there have been -- some  
16 organizations have experienced challenges working with the  
17 State agencies historically around environmental issues.  
18 And so there's a real opportunity, I think, to rebuild the  
19 trust.

20 And for some of these groups, we had Nerissa and  
21 Robin to participate in the meetings. And so that was a  
22 really great opportunity to start building trust and  
23 explaining the Program, and what it can and can't do. And  
24 so I was really grateful to have them participate. But in  
25 San Francisco, we did hear like, hey, reach out to some of

1 the disenfranchised groups and reengage them. They want  
2 to be involved still, so that was good to hear.

3           And we also heard -- we met with -- we had a  
4 meeting mostly one of our APA put it together. And so  
5 there were a lot of partners who work with Asian  
6 communities. And they said, well, it's great that you're  
7 here helping us, but also consider the Latino and  
8 African-American community areas. So we met with other  
9 groups, but I appreciated that there was that concern to  
10 really make sure we're reaching out to all the diverse  
11 ethnic groups in a region.

12           And then, of course, they had some ideas for  
13 chemicals that could be studied if there's the opportunity  
14 to do so.

15                           --o0o--

16           MS. ROSSI: All right. Let's move east to the  
17 Gold Country. So now we're talking about Sacramento, Lake  
18 Tahoe, Sierras area. We heard about water and soil  
19 contamination from large animal lots. We heard about  
20 wildfire smoke when we talked to people in the Sierras.  
21 Diesel and car exhaust also concerns there, and septic  
22 contamination.

23                           --o0o--

24           MS. ROSSI: And when we asked about working with  
25 Biomonitoring in the future, we had the Environmental

1 Justice Coalition for Water say, hey, we convened  
2 scientific and community partners used to reaching out to  
3 us. And so when an organization puts themselves out there  
4 like that, they get invited to participate in our  
5 afternoon roundtable discussion.

6 (Laughter.)

7 MS. ROSSI: And so we will hear from their  
8 director this afternoon. But they also had some ideas  
9 about additional chemicals to study if an opportunity did  
10 arise.

11 --o0o--

12 MS. ROSSI: Okay. So moving inland again to the  
13 Central Valley or moving south, I will say in the Central  
14 Valley, we didn't get a chance to talk to as many people  
15 as we really had hoped for. One of our meetings, where we  
16 were going to have several groups together, fell through,  
17 and we just didn't have a lot of luck in this short time  
18 period in reaching as many groups as we thought. But we  
19 did hear about agriculture and pesticides, which is of no  
20 surprise. We also heard about some key hazardous sites --  
21 hazardous waste sites in Kettleman City, Buttonwillow. We  
22 heard about an incinerator Crow's Landing.

23 And I believe this was the only place where we  
24 heard about the concern about the synergistic effects of  
25 multiple chemicals, and really how do you address that.

1 And so that's -- that's a big question. And so I'm glad  
2 it did come up there.

3 --o0o--

4 MS. ROSSI: And this is another community where  
5 they've have been some issues around trust and  
6 collaboration with State agencies. And so we just need to  
7 really work on building those relationships. And again,  
8 we've already started that process which is wonderful.

9 Another group put that themselves out there.  
10 Center on Race, Poverty and the Environment. They also  
11 are conveners, and they said we'll work with you, when  
12 you're doing studies here. And so the group said, well,  
13 you know, we do appreciate how much expertise  
14 biomonitoring has. And so I think there's a community  
15 that will be doing a local biomonitoring study. And they  
16 said maybe you guys can help us look at our protocols, and  
17 see what you think. And so that's another opportunity for  
18 collaboration, which is great.

19 --o0o--

20 MS. ROSSI: Okay. So moving on to the Central  
21 Coast. This is Santa Cruz down to Ventura.

22 Thank you.

23 We heard about agriculture, groundwater, and  
24 drinking water and schools. Those were the primary issues  
25 that came up.

1                   --o0o--

2                   MS. ROSSI: And in this community, the issue of  
3 children was predominant. They really were concerned  
4 about drinking water at schools and possible lead  
5 exposure. They were concerned about pesticide exposure to  
6 children. You know, there's been evidence of pesticide  
7 use around schools in this community being one of the  
8 highest in the State. And so there was real concern  
9 around childhood exposures, and they ask that we, you  
10 know, consider testing children in future studies.

11                   --o0o--

12                   MS. ROSSI: Okay. Inland Valley. I'm not going  
13 to spend a great amount of time talking about the Inland  
14 Valley, because we have two speakers this afternoon that  
15 represent Imperial County and San Bernardino and Riverside  
16 Counties, and so they'll talk a lot about issues in those  
17 communities much better than I can.

18                   But we did hear about the tremendous impact of  
19 the goods movement in this region. The inland ports, rail  
20 yards, which are just expanding. There are also some key  
21 contaminant sites. Agricultural Park Riverside, Wildomar  
22 housing communities, and then in Imperial issues around  
23 the border, Salton Sea, and other agriculture contaminants  
24 came up as well. So to be continued. We'll hear much  
25 more about this region this afternoon.



1 stock.

2 But I'm -- I actually work with L.A. on a lead  
3 project. And so there is a lot of old housing stock in  
4 Los Angeles. And housing is difficult to find, low-income  
5 housing, so that is a key issue.

6 --o0o--

7 MS. ROSSI: Again, they -- hey, we know you're  
8 coming here for the CARE Study, could you add some  
9 chemicals to your study? Whatever.

10 You know, so we talked to them about, you know,  
11 not being able to do that right now. But they were really  
12 interested in seeing the differences within L.A. County  
13 looking at biomonitoring results, not just as a whole, but  
14 looking at the north county, downtown L.A., the eastern  
15 part of the county. They really want to see the data  
16 broken up by regions within the county. So that was  
17 something that they shared with us.

18 --o0o--

19 MS. ROSSI: All right. We're at the border. San  
20 Diego. So this region is made up of San Diego and Orange  
21 County. Things we heard in this community were a lot  
22 around the border, San Ysidro, communities of Otay Mesa,  
23 Barrio Logan, where there is a lot of mixed use. There's  
24 residential properties very close to things like auto body  
25 shops and other chemical processing facilities. And so

1 that came up.

2 We heard about contamination at Imperial Beach,  
3 drinking water in schools was also a concern in this  
4 community. And I believe this was the only place where we  
5 heard about secondhand smoke and multi-unit housing come  
6 up as a key exposure of concern.

7 --o0o--

8 MS. ROSSI: And so one of the things we heard  
9 here was to really include -- make sure we include  
10 workers, and different types of workers in the CARE Study.  
11 There weren't any other biomonitoring studies as well.  
12 And, of course, they had some ideas for more chemicals to  
13 study.

14 All right. So that was our quick tour of  
15 California.

16 --o0o--

17 MS. ROSSI: And now I'm just going to share some  
18 general recommendations, things that were commonly heard  
19 throughout the State. And then just some things that my  
20 Colleagues and I, as we sat and processed, you know, all  
21 of our meetings, and had, you know, hundreds of pages of  
22 transcript, and, you know, all of the things that we heard  
23 over and over.

24 And so some of them relate to research methods.  
25 Community-based participatory methods very important. I

1 know that is important to the program already. So we're  
2 just reiterating it. That was what we really heard.  
3 People want to be involved in the study. People want to  
4 add more chemicals to the CARE Study. We know that.

5 We were -- it was suggested that biomonitoring  
6 studies focus on chemicals and outcomes that can lead to  
7 policy change versus individual behavior recommendations.  
8 So we know that's a priority of the program already.

9 And then we were advised to just be aware of  
10 litigation that's happening in communities around  
11 environmental exposures, and just be aware of how  
12 biomonitoring results could influence, for better or  
13 worse, any of these legal proceedings so that is something  
14 we'll add there.

15 --o0o--

16 MS. ROSSI: And then we'll talk about community  
17 engagement recommendations. So each EJ organizations have  
18 established tremendous trust within their communities, and  
19 so they are really key groups to work with when doing  
20 environmental research. And so we really want to  
21 reiterate that. We now have this database. We've shared  
22 our newsletter to educate people more about what  
23 biomonitoring does. And so we really hope that this  
24 relationship can stay with these environmental justice  
25 organizations.

1           When working with organizations on say  
2 recruitment of participants for a study, they really --  
3 some of the groups that had participated in studies  
4 historically said, you know, we really need to be well  
5 educated about what the findings mean, what you're  
6 studying. Because after the study is done, participants  
7 still might come back to those organizations and say what  
8 was I supposed to do about my mercury level? And -- you  
9 know, and should I be worried? And they want to be able  
10 to have some context for how to help participants after a  
11 study is complete.

12           And then people that we met said, oh, we know  
13 you're going around the state talking to all these people,  
14 Wouldn't it be great if you had a meeting and could share  
15 your findings with us. And so that's why we've invited  
16 everybody to participate today, either in person or by  
17 webinar. So I'm hoping that some of them are going to  
18 hear what we found as we traveled through the state.

19                           --o0o--

20           MS. ROSSI: Okay. And then lastly just a few  
21 other recommendations. For people that didn't know a lot  
22 about biomonitoring, they were very excited to hear about  
23 the studies that the Program has done over the last 10  
24 years. And they were like, wow, I never knew that. And  
25 so we were able to direct them to the website. We

1 directed them to the community newsletter that outlines  
2 some key findings from studies. And they thought they  
3 were really helpful.

4 So even if a study isn't happening within their  
5 community, they do think that findings will be helpful to  
6 them, and they want to hear more about things that are  
7 happening by the Program. And they wanted to hear how has  
8 this advanced policy in the past, what are some examples  
9 of that? And so we shared that with the Program as well.

10 And then we got really good feedback on the  
11 materials that the Program has produced so far, the  
12 website, the newsletters, the recruitment materials, the  
13 brochures. And so we just want to say keep on with really  
14 producing strong effective visual materials and  
15 multi-lingual, multi-cultural. That seems to be well  
16 received.

17 All right. Well, that is what we learned on our  
18 environmental justice listening sessions.

19 --o0o--

20 MS. ROSSI: We've invited some of the  
21 Organizations that participated in these sessions to be  
22 part of our afternoon roundtable. So we'll hear directly  
23 from them about issues in their communities, and their  
24 partnership with the Program. But if there are any  
25 questions that I can answer now, I'm happy to do so.

1           CHAIRPERSON SCHWARZMAN: Thank you so much,  
2 Deanna. So we have 10 minutes now for questions  
3 specifically to Deanna. And then we'll open up into -- we  
4 have a half hour slated for discussion of the three  
5 presentations this morning sessions. So let's just with  
6 Panel or audience questions for Deanna.

7           Yes, well, let's start with Carl.

8           PANEL MEMBER CRANOR: Perhaps more of a comment.  
9 You've surveyed counties. And some of those are huge, or  
10 areas rather, and I know some people are thinking about  
11 this. They worked on the harbor area, L.A./Long Beach  
12 Harbor for diesel exhaust there. But I can tell you in  
13 Riverside, there's a huge diesel exhaust problem growing,  
14 both by the railroad yards near Ontario. And some people  
15 are trying to put in warehouses that are bigger than we  
16 can imagine. You can put a whole city in them.

17           And there are going to be diesel trucks going and  
18 coming on those freeways. So just developing the project  
19 you've done for future reference may be useful to narrow  
20 in on some things that look like they're going to be real  
21 problems spots.

22           MS. ROSSI: Well, perfect segue to our afternoon.  
23 We have Jean Kayano who will be talking about many of  
24 those issues in San Bernardino and Riverside, the  
25 warehouses and the expansion. So how we can hopefully

1 impact that.

2 PANEL MEMBER CRANOR: Good.

3 CHAIRPERSON SCHWARZMAN: Yes, Jenny.

4 PANEL MEMBER QUINTANA: Hi. This question is for  
5 you and also maybe if the community representatives that  
6 are here for this afternoon, I hope they're going to  
7 comment on this also.

8 What I didn't see in the report that I was  
9 expecting to see is what is different about collecting  
10 biospecimens, blood and urine, what are barriers to  
11 collecting those specimens from community groups  
12 perspectives, and are there specific groups in the  
13 community, whether different ethnicities, or what have  
14 you, or genders, that would be less likely to participate  
15 or have more barriers in following onto that. How could  
16 we overcome those barriers. You brought one up earlier  
17 like using a sample for genetic testing. How do we ensure  
18 that we're not doing that if -- you know, that kind of  
19 thing. So I guess my question partly for you, and  
20 hopefully we'll hear more about it in the afternoon too.

21 MS. ROSSI: Yeah, we did -- we did -- I can't say  
22 that we identified specific groups that would be harder to  
23 reach than others. But we did hear some people say I  
24 think my community would be really reluctant to give you  
25 blood and urine. You know, one group said, you know, we

1 try to do water sampling, and they don't even want to, you  
2 know, have their water sampled. And so I'm not sure how  
3 likely they're going to be to give blood and urine.

4 But we didn't -- we didn't -- so we know that  
5 that is going to be a challenge. And they thought that  
6 working with the trusted community groups would be the  
7 best approach to overcoming those challenges, you know,  
8 certainly. But I think also seeing that the outcomes are  
9 used in a way that can help their community I think was  
10 another key selling point.

11 Like, they just don't want to provide more data  
12 and be part of another research study, but they want to  
13 see a study that can result in some change in their  
14 community. And so to the degree that the Program can  
15 partner with other organizations that have regulatory  
16 oversight, I think is important.

17 CHAIRPERSON SCHWARZMAN: Other questions for  
18 Deanna?

19 PANEL MEMBER SUÁREZ: I just wanted to say I  
20 think this is fantastic.

21 MS. ROSSI: Oh, thank you.

22 PANEL MEMBER SUÁREZ: I really like what you've  
23 done, and congratulations with that. You can see a lot of  
24 effort.

25 Would you mind sending us just a list of the

1 different organizations you met with? That would be  
2 fantastic.

3 MS. ROSSI: Sure.

4 CHAIRPERSON SCHWARZMAN: Other questions from for  
5 Deanna from the panel?

6 PANEL MEMBER BARTELL: No, I did have one.

7 CHAIRPERSON SCHWARZMAN: Yeah, go ahead, Scott.

8 PANEL MEMBER BARTELL: Let me find my notes here.  
9 Oh, yeah, so I was just thinking a little bit about this,  
10 you know, inherent tension between adding more chemicals  
11 and being able to, you know, compare across regions or  
12 within one of the regions, you know, looking at  
13 subregions. Okay.

14 Oh, sorry, is that not -- is it on?

15 Okay, how is this?

16 So, yeah, I was just wondering about this, ten --  
17 you know, given the fixed amount of money available to do  
18 this, I'm sure we'd all love to, you know, measure these  
19 things in more people, and measure more of them -- more of  
20 the chemicals. But given that, you know, we have finite  
21 resources, did you get a sense, you know, in these  
22 discussions -- it sounded like a number of community  
23 partners wanted to increase the number of chemicals. Did  
24 you get a sense whether that was more of a priority  
25 compared to say being able to compare across regions

1 within California or within regions?

2           Because, you know, essentially, if the --  
3 Biomonitoring California would be moving in that  
4 direction. If they would try to do that, they would --  
5 you know, it would be at a cost of giving up some of those  
6 other things on the wish list.

7           MS. ROSSI: Um-hmm.

8           PANEL MEMBER BARTELL: And did, you know, the  
9 sort of discussion of weighing those priorities ever come  
10 up with these groups?

11           MS. ROSSI: Well, we were careful not to say,  
12 hey, we're adding more chemicals, tell us what you want.  
13 You know, we were like -- the people just offered that.

14           And so we didn't solicit that kind of input, per  
15 se. But I think my impression is that people would rather  
16 see more chemicals in their region than see the comparison  
17 across multiple regions.

18           PANEL MEMBER BARTELL: Okay. Thanks.

19           CHAIRPERSON SCHWARZMAN: Okay. That's the end of  
20 our questions for Deanna. Thank you very much.

21           MS. ROSSI: You're welcome.

22           CHAIRPERSON SCHWARZMAN: And we'll get to talk  
23 more in the afternoon.

24           And I want to open up the session now for we have  
25 until 12:30 for discussion of the three presentations that

1 we heard this morning, including public comment. This is  
2 not just a time for Panel discussion. Also for people who  
3 are listening on the web, please feel free to email in  
4 comments to biomonitoring@ -- did I get that right? --  
5 @CA.gov -- biomonitoring@oehha.ca.gov.

6 (Laughter.)

7 CHAIRPERSON SCHWARZMAN: Sorry about that.

8 And if you want to make sure that you get called  
9 on, please just flag down Duyen for a blue card, and we'll  
10 make sure that you get called on from the audience.

11 One thing that I want to mention is this  
12 afternoon we'll be specifically addressing the discussion  
13 questions that were circulated in advance of the meeting.  
14 And our guest discussants will be bringing up ideas around  
15 that before we have the discussion. So keep those  
16 questions in mind, because we'd like to, as much as  
17 possible, sort of focus the afternoon's discussion on  
18 those. And we might defer some of those topics, if they  
19 come up this morning, until this afternoon.

20 So to quickly summarize those three questions  
21 that were provided for this of this noon, the first is to  
22 give the Program your impressions of EJ work so far and  
23 ideas for future priorities. More specifically, number  
24 two, is highest priority exposures to investigate and  
25 particular communities or subpopulations and vulnerable

1 groups that should be priorities for investigating as  
2 budgets permit.

3 Oh, sorry. There's four questions.

4 The third is to comment on existing community  
5 efforts that would be potential partners for Biomonitoring  
6 California. And the fourth is how might Biomonitoring  
7 California findings be useful for basically policy impact,  
8 which is something that's come up before for evaluating  
9 the public health and regulatory efforts to reduce  
10 chemical exposure.

11 So at the risk of stimulating conversation about  
12 those four questions by raising them, I also just want to  
13 say that's going to be the focus of our afternoon  
14 discussion. So other comments may be we could prioritize  
15 those for now, and just see how the discussion goes.

16 Any Panel members who want to start off the  
17 conversation/discussion of this morning's three  
18 presentations?

19 Ulrike looks like she has something to say.

20 (Laughter.)

21 CHAIRPERSON SCHWARZMAN: No.

22 Jenny usually gets us started.

23 PANEL MEMBER QUINTANA: I was waiting.

24 I just had a more specific comment about the  
25 Asian Pacific Islander Study. And forgive me if I can't

1 remember the study design, but I'm curious if these were  
2 selected to be non-smokers, or if there are smokers among  
3 this group? Because lead and cadmium -- sorry lead and  
4 arsenic are both found in cigarette smoke, tobacco smoke,  
5 both if you're smoking and also if you're exposed to  
6 secondhand smoke.

7           And so I was curious about that and whether  
8 cotinine could be measured in the samples to maybe explain  
9 some of those high values potentially.

10           DR. WU: Hi. This is Nerissa. We did have  
11 smokers and non-smokers in the sample -- in the  
12 population, and we did collect information on their  
13 smoking. I believe the information I presented today, the  
14 preliminary data analyses was controlled for smoking, but  
15 we have not -- we haven't actually done confirmation of  
16 smoke exposure through cotinine analyses.

17           CHAIRPERSON SCHWARZMAN: Did you get that -- I  
18 mean, your question answered?

19           (Laughter.)

20           CHAIRPERSON SCHWARZMAN: Other comments or  
21 discussion points from the Panel?

22           We have Jean Kayano wanted raise a point.

23           MS. KAYANO: Yes. Yeah, I wanted to talk about  
24 the diesel exhaust study in Oakland. And I was very  
25 curious to know if the researchers have reached out to

1 like the AQMDs, the air quality management boards, because  
2 a lot of times they do have things like they've studied  
3 the air filtration system. The air filtration systems  
4 from Home Depot are just not adequate, but they have -- at  
5 least South Coast AQMD have tested out some air filtration  
6 units, stand-alone unites, as well as ones that you can  
7 install.

8           And we've used them in Riverside and San  
9 Bernardino. And it makes -- it makes a difference, but it  
10 also collects the dust. And so we've noticed that when we  
11 use the air filtration system in a place that's maybe not  
12 as bad, you don't have to change out the filters like  
13 within maybe six to a year. But near a rail yard or near  
14 the diesel trucks, it's like within three months the soot  
15 collected is so black.

16           So I'm just wondering, you know, if you reach out  
17 to them, because sometimes they'll even fund, you know,  
18 with you to do that, if you're going to use the air  
19 filtration system to do more studies. And they will do  
20 that, but I don't know if you have reached out to them.

21           And that would be a benefit to the participants,  
22 because you're right, the one toxin is very, very bad.  
23 And so in exchange for their giving you data, you give  
24 them something in return. And that's something I haven't  
25 seen a lot. And so it's just a suggestion.

1           CHAIRPERSON SCHWARZMAN: I want to just make one  
2 comment on that while you're waiting to reply, which I  
3 really appreciate that comment. I think it's really  
4 useful. And it reminds me of something that has come up  
5 on this Panel in the past, which is our real interest in  
6 doing intervention studies. And one of those came up with  
7 the foam about where we're -- we're asking participants to  
8 participate in the study. And in re -- in return, they  
9 get a new couch. You know, and it's an intervention  
10 study, so it's simultaneously collecting data and testing  
11 something while we're doing something that will  
12 potentially improve the exposure.

13           And I -- so I appreciate that as an idea for  
14 another -- sort of another angle on an intervention study.  
15 And it's -- maybe there isn't the room to do a before and  
16 after test with introduction of air filtration devices at  
17 home, but it's a nice component.

18           Sara

19           MS. HOOVER: Hi, this is Sara. Thank you, Jean.  
20 That's great to hear. And, yes, we actually have talked  
21 to the local AQMD. Duyen was at a conference recently,  
22 and they attended, and we got to talk with them and  
23 discuss our study. They're very interested. And I've  
24 also been -- we gave a briefing to the CalEPA EJ liaisons.  
25 And through that, we connected with ARB.

1           So we're kind of poised -- you know, we've been  
2 waiting for formal approval, and we're poised to go for it  
3 and start connecting with all of our partners.

4           CHAIRPERSON SCHWARZMAN: I think Asa had a  
5 comment.

6           DR. BRADMAN: Yeah. This is separate from  
7 diesel. And we was just traded a couple of emails on it.  
8 But I was struck at how it seemed high the arsenic levels  
9 were in the urine samples, I think, in the ACE Study. And  
10 I just wondered if there's any more comment and discussion  
11 on that.

12          DR. WU: Sure. Yes, it was about twice as high  
13 as in the Project BEST cohort. And so -- and not  
14 unexpected necessarily, but we did follow up with a lot  
15 of -- actually, this is the team that did a lot of the  
16 follow-up calls - Lauren Boehner - to try to figure out  
17 where those exposures were coming from. And a lot of it  
18 is diet, but there were some other factors that maybe you  
19 guys can comment on.

20          MS. KAUFFMAN: All right. So there was -- so  
21 rice, right? Rice and fish. So, diet. And, gosh, ACE I  
22 there's seaweed. Seaweed in diet, not seaweed  
23 supplements, right?

24           Yeah. Tea -- potentially tea -- but, yeah, I  
25 mean, large quantity -- liters of a certain kind of a tea

1 drunk in a day, but unclear if that's, yeah, was the  
2 source.

3 DR. BRADMAN: I just wondered, too, if there was  
4 an opportunity there for intervention, and, one, trying to  
5 understand more, and then get -- it was pretty striking  
6 the numbers that were presented.

7 MS. KAUFFMAN: So we didn't do a follow up  
8 testing, but we did give our -- you know, the arsenic fact  
9 sheet and, you know, ways to reduce exposure and give that  
10 advice to people.

11 DR. WU: I mean, this did come up a lot in the  
12 community discussion. It's a difficult -- it's a  
13 difficult exposure to try to work around. I mean, there  
14 aren't good alternatives. I mean, for people with a very  
15 rice-based diet. It's -- to say, well, just don't eat so  
16 much rice is difficult. And also because it's  
17 unpredictable, there aren't real patterns to -- I mean,  
18 most people don't know where their rice was grown.

19 It's hard to track back, you know, which kinds of  
20 rice are going to be higher than others. There's some  
21 recommendations on how to prepare rice. So it's a good  
22 question, and I think a difficult one for us to really for  
23 recommendations around.

24 I don't know. We do have a representative from  
25 APA here, and I don't know, Alex, if you have anything --

1 if APA has talked about some follow-up to the arsenic  
2 findings? Is there anything you want to add?

3 MR. NGUYEN: We have followed up -- sorry, my  
4 name is Alex with APA Family Support Services. And I was  
5 part of the ACE Project and did a lot of the field work.  
6 And we have followed up with some of the people -- the  
7 participants that were in the study, and just made them  
8 aware of their -- of the level of arsenic and how it is a  
9 concern. But we're still figuring out as a non-profit  
10 organization steps and procedures, and maybe some forms of  
11 education and information distribution that we could do on  
12 our end. So, yeah.

13 MS. KAUFFMAN: And one of our pieces of advice is  
14 just to -- is to vary your diet. So, I mean, with rice if  
15 buy, like my family does, a 50-pound bag of rice, the new  
16 crop from Thailand, and go through that. I mean, that's  
17 like one big hit, if it happens to be high in arsenic. So  
18 maybe like buying smaller bags of rice, varying the brands  
19 or where it comes from. That's an important part of the  
20 message that we give people.

21 MS. HOOVER: And, hi. This is Sara Hoover. I'm  
22 just going to be really brief, but I'll -- I just want to  
23 also give -- step back and say in our protocol, Shoba Iyer  
24 in my section and I and others, we developed a very  
25 extensive questionnaire, where we ask about basically

1 every possible arsenic exposure that we can think of.

2           And then Shoba did a really interesting analysis  
3 of that for BEST, which we have in a poster. Hopefully, a  
4 paper we'll be working up. And then we are going to be  
5 doing additional follow-up. So we have -- what we do is  
6 we do the follow up, we ask all these questions, and then  
7 we take it back and we look at it all, and we actually try  
8 to figure out what we think likely sources are.

9           And if we have likely sources or advice we want  
10 to offer to a participant that they haven't already  
11 received on the fact sheet, we can circle back with that  
12 person and give them additional advice. And we're now in  
13 the process of meeting -- we just had a meeting Tuesday to  
14 start to look at ACE II, which is a lot of potential for  
15 follow up and -- you know, it's going to be complicated.  
16 So we're looking at individual participant results and  
17 starting to prepare follow-up information.

18           CHAIRPERSON SCHWARZMAN: Ulrike, you had a  
19 comment.

20           PANEL MEMBER LUDERER: Yeah. This is sort of  
21 following up on the arsenic, and maybe also tying in with  
22 some of the things that I think we heard earlier this  
23 morning about that it's important -- you know, to give  
24 people things that they can do as individual to try to  
25 reduce their exposures, but then -- you know, and it's not

1 always reasonable in -- as a way to actually reduce the  
2 exposures, if there are larger systemic reasons for the  
3 exposures.

4           And so one of the things with arsenic that, you  
5 know, we -- that I recall is that the plants do take up  
6 arsenic. But one of the issues seems to be growing rice  
7 in areas where pesticides containing arsenic was  
8 previously used. And, you know, so this is maybe one of  
9 those policy areas that this kind of biomonitoring data  
10 could increase awareness of that, and maybe there need to  
11 be changes made as, you know, at least -- I mean,  
12 obviously, if rice, as you mentioned, it could be coming  
13 from outside the U.S., but certainly places where it's  
14 grown in the U.S., maybe it shouldn't be grown where  
15 arsenical pesticides were used previously.

16           CHAIRPERSON SCHWARZMAN: Jenny, you had a  
17 comment?

18           PANEL MEMBER QUINTANA: I just wanted to follow  
19 up on our Chair's comment about intervention studies and  
20 Asa Bradman's comment that, my understanding is also that  
21 California rice is lower in arsenic. That's just -- I  
22 have no actual knowledge. It's just my hearsay. But as  
23 opposed to rice from parts of the southern -- southeast  
24 U.S.

25           But, I mean, could you provide people with 50

1 pound bags of California grown rice, or what have you, and  
2 actually see if this does make a difference? I know it  
3 requires resources, but it's just something where again  
4 getting back to what can you do as a -- personally? And  
5 advocating for testing rise for arsenic, and being tough,  
6 you know, as the USDA on that.

7           PANEL MEMBER KAVANAUGH-LYNCH: I wanted to  
8 basically reiterate what has just been said in the, you  
9 know, last two comments is it is so easy to take these  
10 results and say, here's what an individual should do with  
11 them when we actually just heard from the wrap-up of the  
12 listening sessions that what people want is not  
13 recommendations about what they can do personally, but how  
14 do we fix them on a systemic issue? And so what are the  
15 policy issues that we can start advocating or that these  
16 organizations can start advocating for.

17           And it is -- it's just -- I think, it's human  
18 nature to say, oh, what can I do about it, when it is not  
19 an "I" problem. And just want to encourage you, when  
20 you're developing materials, to go back to people that,  
21 yes, people want to know what they can do individually,  
22 but really, really more important is what can we do on a  
23 systemic level.

24           CHAIRPERSON SCHWARZMAN: Did you have a response.  
25 If not, I have another card.

1 MS. HOOVER: Yeah.

2 Is this working?

3 Okay. I just wanted to say one thing regarding  
4 the intervention, study Craig Steinmaus actually designed  
5 and proposed an intervention study with rice. As far as I  
6 know, that was not funded as yet, but he's -- he's working  
7 a lot. He's -- he actually -- I should have mentioned his  
8 name. He was a key part of designing our arsenic  
9 follow-up survey our follow-up protocol. So he's doing a  
10 lot of that kind of work.

11 I'll just add on to what Mel just said, that this  
12 is a big topic for us like regulatory effectiveness,  
13 trying to look at how we can take our biomonitoring work  
14 start to feed into policy more. So that's actually going  
15 to be a proposed SGP topic for next year. But I did want  
16 to let this person, who's been trying to have a comment.  
17 So I'll start there.

18 MS. GELLER: Samara Geller here.

19 My question and comment is related to the diesel  
20 exhaust study.

21 So I'm familiar with the great work of EIP. I  
22 actually did some volunteering when I was at school at UC  
23 Berkeley. And I'm just in awe of the work their community  
24 members do to do these advanced ground-truthing exercises,  
25 where they're mapping communities in West Oakland in

1 depth, looking at locations of auto body shops, other  
2 areas where pollution -- point pollution is high.

3           So I just wanted to bring that up in case you're  
4 looking at these additional stressors to sort of key in on  
5 participants.

6           Also, truck idling is something they've looked at  
7 in depth, and perhaps looking at regulations around idling  
8 and enforcement of those existing regulations. And I'm  
9 sure those community members would be very adamant about  
10 pointing that out, but I wanted to raise that again.

11           And also, in terms of study design, I know you're  
12 looking at doing vacuum bags or sampling from those vacuum  
13 bags. But I do know those members are concerned about the  
14 collection of soot around the window sills and on the  
15 blinds, and where it's entering through the windows. And  
16 so that would be also a great place you could sample. And  
17 I would suggest that as well.

18           Thank you.

19           MS. KAUFFMAN: Thank you.

20           MS. GELLER: Wait I'm from EWG. Nancy has  
21 prompted me to say.

22           (Laughter.)

23           MS. KAUFFMAN: Thank you.

24           CHAIRPERSON SCHWARZMAN: I think we have a  
25 comment from Esther Bejarano.

1 MS. BEJARANO: Esther Bejarano, and I'm from  
2 Imperial County, two hours east of San Diego, and  
3 currently working on asthma studies and home visitation  
4 programs, but I can discuss some of that on -- later on  
5 the panel session.

6 I wanted to just go back to the bay diesel study,  
7 and really share that -- I saw that you're going to do  
8 some walk-throughs. And I think that that's very delicate  
9 type of intervention.

10 I was curious, you said that -- I don't know if  
11 it was community health workers or who's going to be going  
12 into the -- you know, into a home basically looking at  
13 every single private aspect of the home.

14 Generally for these studies, as a resident that  
15 lives in very asthma high prevalence episodes. But  
16 they're obviously being part of the study, because they  
17 want to improve their lifestyle, right.

18 So I would recommend may be partnering with the  
19 community initiatives maybe linked to asthma, or cancer,  
20 or -- and really having some kind of resource for them  
21 when you are going into the homes, not just taking people  
22 away, right, but also giving back. I think that's  
23 important.

24 MS. KAUFFMAN: Right. Yes, and we do understand  
25 it's really delicate for people to allow us into their

1 homes. It's a fairly involved informed consent process,  
2 but we -- we have built into the scripting that we ask  
3 permission to go into each room. And we want to be really  
4 respectful, and people can decline that portion, if it's  
5 just not comfortable for them. So, yes, we -- we have a  
6 lot experience doing these kinds of things, and it's a  
7 great suggestion to, you know, maybe bring work -- you  
8 know, staff also to accompany us from our partners if,  
9 yeah, they're available, and that would help to make a  
10 more trusting environment for participants.

11 MS. BEJARANO: And then reaching out to local  
12 community groups --

13 MS. KAUFFMAN: Yes.

14 MS. BEJARANO: -- that are already taking some  
15 type --

16 MS. KAUFFMAN: Right.

17 MS. BEJARANO: -- of initiative in their  
18 community --

19 MS. KAUFFMAN: Right.

20 MS. BEJARANO: -- and may bringing them in right  
21 and --

22 MS. KAUFFMAN: Yes.

23 MS. BEJARANO: -- maybe reassure -- some of those  
24 resources or some of those things that communities don't  
25 have due to funding.

1 MS. KAUFFMAN: Right. Thank you.

2 MS. HOOVER: Hi, this is Sara Hoover again. I  
3 just wanted to comment about the soot. So our real-time  
4 black carbon sensor should hopefully reflect some of that.  
5 So that's one way we'll be capturing the soot.

6 CHAIRPERSON SCHWARZMAN: I have a comment here  
7 from Laura Gracia-Santiago.

8 MS. GRACIA-SANTIAGO: Hello. I had three  
9 questions about the Bay -- the Bay Diesel Project. I live  
10 here in Richmond, and I've been organizing here for about  
11 year -- over a year now. The one thing I wanted to flag  
12 when we were talking about, oh, maybe we can use some of  
13 the air monitors that are existing, so Chevron actually  
14 runs a lot of those air monitors. And they give the  
15 information to our air districts, so I would want to flag  
16 that, and being careful about the results, as well as  
17 understanding that those monitors aren't on all the time.  
18 They're on for a couple of hours out of a couple of days  
19 out of the week. So that's one flag.

20 Two, a lot of the places where, for example, the  
21 Breathmobile, and YMCA Centers, we have one YMCA, maybe  
22 two in Richmond/San Pablo area. So I don't know if those  
23 are necessarily the best places to do outreach. There are  
24 a lot of community centers, there are a lot of  
25 organizations working in Richmond and San Pablo. And so I

1 feel like there needs to -- definitely like this outreach  
2 portion needs to be expanded into really ground-truthing  
3 and seeing what's available in the community and where are  
4 folks meeting up.

5           And that's obviously done by, you know, working  
6 with organizations that have been working and organizing  
7 in the communities.

8           And I'm also curious I understand that you use  
9 CalEnviroScreen to determine where there were high levels  
10 of diesel particulate matter. And I'm also interested in  
11 like why North Richmond didn't show up as one of those  
12 spaces. So North Richmond is a very light industrial  
13 unincorporated county. There's like Blue Apron, they're  
14 trying to put in a new Amazon-like center. There's like  
15 three food packaging places, and they all have diesel  
16 trucks coming in and out.

17           So I feel like North Richmond is definitely a  
18 spaces where diesel is a huge issue. And for San Pablo,  
19 it's not necessarily just because it is -- the streets are  
20 a lot smaller, but there is a lot of small mechanics. And  
21 a lot of them are small family-oriented businesses.

22           So I'd also be cautious about that

23           MS. KAUFFMAN: Yes. Thank you. Yeah. No,  
24 that's a great list. I'd like to talk to you off-line.

25           (Laughter.)

1 MS. KAUFFMAN: This wasn't meant -- oh, this is  
2 Duyen Kauffman, and it wasn't meant to be a comprehensive  
3 list. I actually live in San Pablo. I know the Richmond  
4 Bursa Atlas. And I know the whole foods distribution and  
5 UPS, and all that. So we -- I -- you know, we have  
6 other -- I have contacts in the community and we are going  
7 to be casting a wide net. And I would love to talk to you  
8 more about that. So thank you for bringing that up and I  
9 hope to discuss it more.

10 And I guess about the Chevron air monitors. I  
11 mean, it's my understanding that Chevron is not the source  
12 of 1-NP specifically. There are lots of other things at  
13 the refinery, but 1-NP is not produced by the combustion  
14 that's there.

15 (Response from audience.)

16 MS. KAUFFMAN: Well, I think the air monitors at  
17 Chevron -- like why North Richmond didn't show up. Right.

18 MS. DUNN: This is Amy Dunn. I think that what  
19 you were raising was that the monitors themselves are  
20 located near the refinery, and those are not always on.  
21 So if we were using those as a source of information, it  
22 was not that reliable.

23 MS. GRACIA-SANTIAGO: No, I was saying,  
24 someone -- I can't remember exactly where it came up, but  
25 there was like a comment saying, well, what if we tap into

1 the current existing air monitors to loop into the study  
2 for diesel? So there are various air monitors that were  
3 put in like between the refinery and the air district. So  
4 I'm not sure if they're necessarily, you know, only  
5 studying that, the 1-PM[SIC} --

6 MS. KAUFFMAN: Right.

7 MS. GRACIA-SANTIAGO: -- but what -- I'm just  
8 trying to flag that the results -- the data doesn't --  
9 isn't live. It's not going directly out to the community.  
10 It's being presented by the refinery.

11 MS. KAUFFMAN: Right. Right. And the air  
12 monitoring networks that I was referring to, there are  
13 some studies where they've set up monitors in schools, and  
14 it's not Chevron monitors. It's independent studies  
15 that -- and we thought if there's already interest in air  
16 quality at schools, that that would be a place to sort  
17 of -- if people have already gotten with that. AQMD, ARB,  
18 EPA Region 9 has funded some studies for air monitors in  
19 schools. And so we would be starting there, since there  
20 is already a -- you know, possibly -- raise awareness of  
21 air quality.

22 CHAIRPERSON SCHWARZMAN: Scott, yeah, please.

23 PANEL MEMBER BARTELL: Yeah. The comment or  
24 question about CalEnviroScreen and Richmond versus other  
25 areas kind of reminded me of a question I had earlier on

1 this. I think it's slide 5 of the East Bay Diesel  
2 Exposure Project. There is a map that kind of shows, you  
3 know, areas in the East Bay with higher versus lower. But  
4 I didn't quite catch whether that was like just an  
5 example, and like a short-term -- you know, like a daily  
6 measure on one day, or does that map actually show longer  
7 term averages. And that might be very important for, you  
8 know, community members here to know if this is actually a  
9 sort of representation of long-term diesel PM  
10 concentrations in the East Bay or is this just an example  
11 of like one day?

12 MS. HOOVER: Okay. We're talking amongst  
13 ourselves to figure out the answer. Amy, did you want to  
14 say something?

15 MS. DUNN: Hi.

16 MS. HOOVER: Oh, Lauren can answer.

17 DIRECTOR ZEISE: Yeah, hi. That isn't just a  
18 one-day snapshot. That does represent long-term diesel  
19 exposure.

20 PANEL MEMBER BARTELL: Okay. So that is the best  
21 guess of the longer-term exposure in the East Bay?

22 DIRECTOR ZEISE: Yes, it's a -- it's a very good  
23 indicator of long-term exposure.

24 PANEL MEMBER BARTELL: Okay. Thank you.

25 MS. HOOVER: We actually had a slightly different

1 impression from what Walker explained to us that they're  
2 modeling a specific day in --

3 MS. DUNN: July.

4 MS. HOOVER: It's a predicted -- so I -- let me  
5 just try to step back and say just a general thing, which  
6 is we're using a bunch of pieces of information, including  
7 the kind of information that Laura was pointing,  
8 connections in the community, local information, and  
9 CalEnviroScreen, and air monitoring data to try to target  
10 specific areas knowing that that data is, you know,  
11 there's gaps, it's not adequate, and we might see  
12 something different.

13 And that's part of the point of our study is to  
14 actually look at a whole bunch of, hopefully, robust data  
15 sources at a local level, and see what's actually  
16 happening versus what's predicted to be happening. So  
17 that's part of -- so we're not expecting necessarily to  
18 find that we agree, you know, with these predictions. And  
19 that's part of what the value of the study is.

20 And, in fact, in talking with ARB, Alvaro  
21 Alvarado, he's very interested, because, you know, they've  
22 done a huge effort on diesel regulation. And he's very  
23 interested to see do we pick up, you know, hot spots that  
24 they should know about there. Are there things like truck  
25 idling that they can try to enforce more strongly. So

1 it's going to give them a guide for more regulatory  
2 intervention. That's one of the reasons we're excited  
3 about this study, because we're linking it up with policy.

4 PANEL MEMBER BARTELL: So if I can maybe  
5 summarize the upshot of that for interpreting page five.  
6 Yeah, so for interpreting that figure on page five, maybe  
7 the -- is it a fair statement to say you think that, you  
8 know, there may be better information coming out of this  
9 study regarding the exposures in this region what  
10 what's -- you know, what I'm kind of looking for is can  
11 the community members who are here today take this back to  
12 their communities and say these are the areas that we are  
13 pretty sure have highest Diesel PM exposures on your page  
14 five graph, or should they not be doing that quite yet,  
15 and kind of waiting to see how the additional information  
16 is taken in.?

17 DR. BRADMAN: Well, it's kind of like two  
18 different approaches. I mean, we're kind of going in with  
19 a ground-truthing approach. And we're trying to  
20 collect -- we're going to collect diesel exposure  
21 information from areas with expected high and low  
22 exposure. So we're expecting a range of exposures based  
23 on the CalEnviroScreen, which also derives from traffic  
24 density, maritime sources, rail. So it's likely, you  
25 know, pretty good, but it's also done like in a four

1 kilometer by kilometer grid. And then it's getting  
2 reduced down to census tract level.

3           So we're hoping to both kind of validate that  
4 prediction, and also, you know, provide some actual  
5 on-the-ground information of exposure based on personal  
6 biomonitoring, which has never really been done in this  
7 community. So it's -- it really helps build on, you know,  
8 the more general information and tries to help -- and  
9 tries to make it more specific.

10           PANEL MEMBER BARTELL: Thanks.

11           MS. HOOVER: This is Sara again. Let me just add  
12 one quick thing.

13           Sorry, Martha.

14           If you all are aware of the local air monitoring  
15 mapping that's going like with the Google cars, it's quite  
16 stunning, the variation at a local level. So remember  
17 that these predictions are very broad. You know,  
18 they're -- they can be region wide, census tract wide.  
19 Not really specific. So if you look at the data that's  
20 being put out, you know, you might have a corner that's  
21 got a really big spike. So that's -- we're trying to  
22 start to get it -- you know, get at that more local level  
23 looking at what's actually going on on the ground.

24           DR. SANDY: You got it.

25           CHAIRPERSON SCHWARZMAN: I think we need to break

1 for lunch. This is -- it's great to hear this discussion,  
2 and we'll get the chance to continue more of this in the  
3 afternoon.

4           So before we break, I need to give you a couple  
5 of reminders. One is that we have an hour 15 minutes for  
6 lunch. And so it's encouraged that you find a close sport  
7 for lunch, such as this cafeteria right here.

8           And we ask that you return no later than 1:45, so  
9 that we can begin the afternoon session on time.

10           And I just want to provide the following informal  
11 Bagley-Keene reminder before we adjourn for lunch. As a  
12 reminder for Panel members, please comply as usual with  
13 the Bagley-Keene requirements and refrain from discussing  
14 Panel business during lunch and the afternoon break.

15           And we'll see you all at 1:45.

16           (Off record: 12:31 p.m.)

17           (Thereupon a lunch break was taken.)

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1                   A F T E R N O O N   S E S S I O N

2                   (On record: 1:48 p.m.)

3                   MS. KAUFFMAN: Welcome back. Welcome back,  
4 everybody. We hope you enjoyed lunch. And if you can  
5 find a seat, we're going to get started here momentarily.

6                   CHAIRPERSON SCHWARZMAN: Okay. Is this working?  
7 Does that sound okay?

8                   So I want to welcome everybody back from lunch.  
9 And I'm just going to start with a quick review of our  
10 goals for the afternoon session. We want to identify key  
11 next steps needed to build on the Program's EJ work so  
12 far. And in service of that, we're going to start with  
13 some summary of community priorities for future  
14 biomonitoring studies, including geographic regions, local  
15 neighborhoods, and other groups defined by a shared  
16 characteristic, such as pregnant women, and how to  
17 prioritize those for study; and look at chemicals of  
18 greatest concern to measure in particular regions for  
19 certain subgroups or statewide.

20                   Also, we'll highlight strategies for engaging  
21 with impacted communities, and look for ways to use  
22 biomonitoring findings to help evaluate regulatory and  
23 public health policies, and support action to address  
24 chemical exposures of concern, which is a theme that's  
25 kind of been coming up throughout the morning.

1           I want to remind people that you can refer to the  
2 handout that includes the discussion questions, as our  
3 afternoon session proceeds. And those, if you don't have  
4 it already, are available at the entrance to the  
5 auditorium, and Panel members have them in their packets.

6           So this afternoon, Deanna Rossi is going to be  
7 helping to facilitate questions and comments from the  
8 in-person and webinar audience. I'll continue to work  
9 with the Panel. But to kick-off this discussion session,  
10 we're going to hear from some guest discussants. Two  
11 first, and then we'll have some time for discussion, and  
12 then we'll hear from two more.

13           Before I introduce them, I was asked just to  
14 remind people that for the purposes of the transcription,  
15 we need to be -- our transcriptionist needs to hear you  
16 better, and so speak closer to the microphone, speak up,  
17 and then every time you speak, it's important to say your  
18 name, even if you have spoken before. So we'll be  
19 reminding you of that as the afternoon proceeds, but  
20 hopefully you can keep that in mind.

21           Okay. So I'm going to introduce all four of our  
22 guest discussants, and then they'll go in turn. So you  
23 have to memorize their bios.

24           (Laughter.)

25           CHAIRPERSON SCHWARZMAN: So first of all Jean

1 Kayano is the Associate Director of the Center for  
2 Community Action and Environmental Justice, also known as  
3 CCAEJ. In that role, she's responsible for overseeing  
4 organizational programs, including the electoral and civic  
5 engagement program, and ensuring that they're implemented  
6 effectively.

7 Her duties involve building the systems,  
8 infrastructure, and resource strategies necessary to  
9 support CCAEJ in achieving its mission. Jean is also  
10 dedicated to leadership building with community residents  
11 who fight for the right to live in a healthy, toxic free,  
12 and sustainable environment. At CCAEJ, she has uncovered  
13 her true passion working to achieve social and  
14 environmental justice.

15 Esther Bejarano is -- has 15 years of experience  
16 working as a community advocate for Comite Civico Del  
17 Valle. Esther currently leads the organization's asthma  
18 management programs, but she has also partnered with  
19 academic and research institutions to expand environmental  
20 research in Imperial County with a focus on air quality  
21 and agricultural burning. Esther also works with schools  
22 and health care providers to develop health education  
23 materials and tools.

24 Laura Gracia-Santiago, is the Climate Adaptation  
25 and Resiliency Enhancement, or CARE, coordinator with

1 Communities for a Better Environment, which is program  
2 rooted in Richmond and Wilmington, California. The CARE  
3 program focuses on engaging vulnerable communities in  
4 local and statewide climate adaptation and resiliency  
5 efforts.

6 Previously, she worked alongside young people in  
7 expanding political education, as we heard before, civic  
8 engagement, and fighting environmental injustices as the  
9 Richmond youth organizer.

10 Before CBE, Laura worked with Physicians for  
11 Social Responsibility, national, in coordinating a social  
12 media campaign, and she tutored young migrants in  
13 Watsonville, California. She received her B.A. from  
14 University of California, Santa Cruz with a double major  
15 in Environmental Studies and Art.

16 Colin Bailey is Executive Director of the  
17 Environmental Justice Coalition for Water, EJCW, that we  
18 heard about earlier. He leads the effort to implement the  
19 human right to water in California, and supports EJCW's  
20 statewide policy agenda, programs, outreach, and education  
21 and grassroots member organizations.

22 He's also a co-founding member of the National  
23 Coalition on the Human Rights to Water and Sanitation, and  
24 the National Coalition for Legislation on Affordable  
25 Water.

1           He serves on the Policy Advisory Committee for  
2 the California Water Plan update 2018, and the California  
3 Air Resources Board AB 32 Environmental Justice Advisory  
4 Committee.

5           Colin has his Juris Doctorate from UCLA with a  
6 certification -- certificate from the Program in Public  
7 Interest Law and Policy, and a concentration in Critical  
8 Race Studies.

9           So with this esteemed selection of guest  
10 discussants, we are going to start with Laura  
11 Gracia-Santiago.

12           My apologies, I'm skipping forward on the agenda.  
13 We're going to start with Jean. And we'll have -- we'll  
14 hear from Jean and Esther, and then we'll have a chance  
15 for 30 minutes discussion, and then we'll move on to our  
16 next two discussants.

17           MS. KAYANO: Can you hear me?

18           PANEL MEMBER CRANOR: Pull it closer.

19           MS. KAYANO: Pull it closer.

20           Better?

21           MS. HOOVER: All the way.

22           MS. KAYANO: All the way.

23           I won't have any room.

24           Okay. Better?

25           MS. HOOVER: Yeah.

1 MS. KAYANO: Okay. I'd just like to thank you  
2 for this opportunity at least to be on this panel. I also  
3 wanted to give a shout-out to the listening tour. It was  
4 kind of like the first time that Riverside and San  
5 Bernardino often we're left out. So it was nice to meet  
6 Deanna and her team, and to be able to explain to her  
7 what's happening in our region.

8 Secondly, I want to say that I'm very excited  
9 about the Oakland diesel exhaust study, because this is a  
10 really major issue. You are very right about Riverside  
11 and San Bernardino being a major, major environmental -- I  
12 like to say it's in crisis right now, because of the  
13 diesel exhaust. And there are two communities I kind of  
14 wanted to share with you today. One is in San Bernardino,  
15 and the City of San Bernardino, the west side, and the  
16 other is in Mira Loma Village in Riverside.

17 Both of these communities have been studied.  
18 They've both had a couple of health studies done with the  
19 residents and families and children. One study actually  
20 identified in San Bernardino three cancer clusters, which  
21 is really hard to do, and then a 47 percent rate of asthma  
22 in one of the elementary schools.

23 This is a community that lives right near --  
24 right across from a major rail yard, intermodal facility  
25 where there's trucks and rail going right next to

1 residential area, as well as an elementary school.

2           The other Mira Loma Village in Riverside is off  
3 60 Freeway. This community is right off of a major, major  
4 diesel truck corridor, Etiwanda Avenue, it is a street.  
5 And they experience about 800 trucks an hour during the  
6 day. And right now, I think it's about 30,000 trucks that  
7 they experience going by, so -- and again, both of these  
8 communities have been studied enormously, and nothing has  
9 been done.

10           So with the biomonitoring, for me, I thought this  
11 is an opportunity if the Oakland Diesel and then L.A.  
12 study could hopefully end up where we could be included in  
13 future studies, because I think we're beyond any kind of  
14 air monitoring, because we have been with AQMD. They've  
15 put air monitors near the rail yards, near the schools in  
16 Mira Loma, near the residents. They know there is a  
17 problem. They have done nothing.

18           So again, we can have all these studies done, and  
19 we're looking actually to AB 617, because there is a  
20 little caveat in that bill that says that if communities  
21 been studied to death, and there is data to back up what  
22 they're experiencing, then they can go right into  
23 community action plan, and that's what we're hoping for.

24           When the biomonitoring issue came up, I thought,  
25 well, maybe that might be a good thing, you know, to have

1 the residents be part of a study like that. But again, my  
2 concerns are that they've been studied to death, and  
3 nothing has been done. So to go back and say can you --  
4 you know, be involved with one more study, I'm not sure  
5 that's a good thing to do.

6 But if it does lead to a systemic change, if it  
7 does lead to mitigation measures for these two  
8 communities, then I would encourage it, but not just to  
9 gather additional data. Does that make sense?

10 So I think those are my concerns. And that was  
11 one of the questions I did ask Deanna, what will happen,  
12 you know, to the participants in these studies? Will they  
13 have something at the end that says, okay, we're going to  
14 help you?

15 That's it.

16 CHAIRPERSON SCHWARZMAN: Thank you.

17 MS. BEJARANO: It's a pleasure to be here today.  
18 Thank you, Deanna.

19 Oh, okay.

20 Here. Well, thank you for inviting me. Thank  
21 you, Deanna for extending that invitation. I know that  
22 there was some struggles. There's a lot of things  
23 happening in Imperial County. And we're also one of those  
24 communities that is also sometimes left unforgotten. You  
25 know, I've been a community health worker for about 15

1 years now. Now, I lead most of our environmental  
2 projects.

3 Oh, a little louder.

4 Okay. And so, yes, our community sometimes is  
5 compared to San Diego region, L.A. County region, but I  
6 really want to emphasize that we are a border region, that  
7 we are, you know, just a 12-foot fence separates us and  
8 separates all of the contamination, emissions, New River  
9 coming in through our communities are making it way out to  
10 the states in the U.S.

11 And so several things that are happening in  
12 Imperial County. And I understand completely what you  
13 mean that there's so many studies that are happening.  
14 Sometimes communities don't have studies, but sometimes  
15 there are studies happening locally. And those efforts  
16 are happening. And I think residents are ready to have a  
17 change, have a better quality of life.

18 I do think it's important to share findings and  
19 lessons learned across the State of California. If you're  
20 having a biomonitoring study, and most of them I've heard  
21 are in the Bay Area, reaching out to those other  
22 communities that are not part of those studies, and thus a  
23 part of those efforts, and maybe sharing some findings or  
24 sending back some resources to those communities.

25 But there's a lot of evidence and documentations

1 of things that have been done. And I think that that's  
2 where -- where you're coming from. And I think that  
3 that's a very good point. We're making sure that actions  
4 are taking place.

5 I was just sharing earlier that part of our  
6 efforts right now are our air monitoring program that's  
7 IVAN -- IVAN Air, Identifying Violations Affecting  
8 Neighborhoods. And that was basically guided by  
9 residents -- basically guided by residents that were just  
10 tired of not trusting government. There was the comment  
11 earlier that stated, well, there's diesel that's connected  
12 to some company -- I think it was Chevron or Exxon. And  
13 so the community was basically going on the website,  
14 looking on these monitor sites, wanting to reduce exposure  
15 to these pollution. And those were all always off-line.  
16 They were, you know, off-line on the days that we knew  
17 were the highest.

18 And so what happened is that communities got  
19 together and they just got tired of waiting and waiting  
20 for government. And so that's how actually our air  
21 monitoring project came about. And I now want to thank  
22 our local APCD officer that did not want to do anything  
23 with -- working with community, and not working with  
24 residents.

25 But now I think that he actually made us move

1 forward and really benefit from the drive that the  
2 residents now have, and are ready to move forward. With  
3 that said, we do have a lot of communities still impacted,  
4 a lot of residents that are not uninformed, and we are  
5 working effortlessly on that. We've got a lot of  
6 pesticide spraying happening still to date right by school  
7 grounds, a lot of contamination, field burning. Just  
8 other, a few months ago, we had a teacher call me up --  
9 actually, the principal called me up, she says, Esther,  
10 they're burning right next to my -- our school fenceline  
11 to the field? What do I do?

12 I said how -- well, to this day and age, how can  
13 a principal be calling Comite Civico Del Valle, Esther,  
14 which I love to speak to them, but they should be -- they  
15 should know where to call, right? You call government.  
16 You don't call Esther. You call your local government.

17 (Laughter.)

18 MS. BEJARANO: And so these were the efforts --  
19 you know, efforts that we still continue to take -- you  
20 know, take challenges that we face today.

21 A big challenge is our border region. You know,  
22 we have a lot of diesel emissions coming through on a  
23 daily basis, next to our preschools, next to our schools,  
24 and making their way out to, you know, the rest of the  
25 states.

1 Pesticide spraying, I mentioned, field burning.  
2 We've got a lot of also just lack of information. And I  
3 think that -- if you are going to take a role in this next  
4 phase of biomonitoring, I think it's just really making  
5 that connection with community, and making sure that, you  
6 know, when you do relay some of the information back, you  
7 make it with a connection to maybe some of the local  
8 organizations that do have that precedence there.

9 I've known -- I know of many, many meetings --  
10 many community meetings where they're not held at  
11 community sites that are friendly to residents -- you  
12 know, to members, such as maybe one of these sites, right?  
13 You know who's going to come up to Richmond? And so  
14 making sure that we go -- we take it to where they're at  
15 and -- okay.

16 And so -- so I think that for now, I think  
17 that's --

18 MS. HOOVER: Five more minutes.

19 MS. BEJARANO: Oh, five more minutes.

20 (Laughter.)

21 MS. BEJARANO: Okay.

22 So those are some of the challenges we do have  
23 now, and I know that we -- but we do have some data, some  
24 evidence. I know that I was actually part of a study, a  
25 biomonitoring study that we had with collaboration with

1 CDPH, and Commonweal, and Lori Copan and Sharyle Patton.  
2 And I think it was the first that I ever heard about  
3 biomonitoring in my community. I didn't even know what  
4 perchlorate was, right?

5           But I think that the way that they just came into  
6 community first meeting with the group, meeting with  
7 Comite and meeting with some of the other groups that work  
8 closely with residents, and then going out and inviting  
9 residents that really trust who are -- who they're going  
10 to be working with as partners. And then really opening  
11 their doors, their homes. I know that we collect the  
12 urine sample for about 24 hours one day. And then we, you  
13 know -- we, you know, there was the collection of blood  
14 and the collection of -- even of all the food that was  
15 consumed.

16           And I think that was, you know, a really great  
17 example of how you come into community and  
18 really -- really go and find out who are those folks that  
19 are really on the ground, and really build that respect.  
20 I know that I've had -- I've had opportunities in the past  
21 to not have a very good relations with some of the efforts  
22 that they -- you know, somebody came in, they took blood  
23 of 300 farm workers, some urine, and we have yet to see  
24 the results.

25           And so sometimes when those individuals reach out

1 to community members, and organizations like myself, then  
2 we are left with the community residents not trusting  
3 Comite, because, right, Comite was out there inviting  
4 residents, and so hopefully making sure that that does not  
5 happen. And we -- I know we talked about that that we  
6 won't allow that to happen again in our community.

7           And so, yes, I think that we're ready for action.  
8 I know that we've taken action in Imperial County.  
9 Residents are working on those -- those pieces of now,  
10 really asking for what's needed based on all the resources  
11 that we have now. I know that there's still a lot of work  
12 to be done. We still don't have a lot of education,  
13 especially for those that are -- I call them unforgotten,  
14 because kids that are running, you know, and their  
15 breathing three times more than we are, they're sometimes  
16 not remembered, especially when there's ag burning, and  
17 pesticide spraying, and there's feed lots, and there's --  
18 I mean, you name it, we have it.

19           And so it is a -- it's a challenge to live in  
20 communities like these, but I think that now residents are  
21 really taking a lead and developing strategies to be  
22 citizen scientists now.

23           And thank you.

24           CHAIRPERSON SCHWARZMAN: Thank you to both of  
25 you. We now have about 30 minutes to have discussion. If

1 there's any questions at first, let's start with those  
2 clarifying, or otherwise, for our first two discussants,  
3 and then we can move on into discussion.

4 I don't see any requests for clarification. So  
5 we have time now for discussion. And I would particularly  
6 point people toward the discussion questions that were  
7 circulated and our group discussants, or our guest  
8 discussants were meant to partly sort of seed the  
9 conversation and start the conversation about priorities.

10 So you have a...

11 MS. ROSSI: Okay. I think, I'm on now. So we do  
12 have one question that has come up in the audience. Nancy  
13 Buermeyer, I'll hand to mic to you.

14 MS. BUERMEYER: Okay. Thanks. Nancy Buermeyer  
15 with the Breast Cancer Prevention Partners. So I'm not  
16 prepared to respond to the questions. But I just wanted  
17 to say thank you to all of you. I'm looking forward to  
18 hearing the other two presentations. And I want to  
19 commend the Program and Deanna for the work that they've  
20 done to identify communities out there to go talk to and  
21 figure out what -- what really works for them.

22 I guess one of the questions that I've had --  
23 heard come up, specifically from the head of the  
24 California Public Health Department, Dr. Karen Smith, is  
25 sort of how do you deal with biomonitoring data that

1 doesn't say what the community thinks it should say, or  
2 thinks it's going to say? You know, like what if you  
3 think there's higher lead next to a particular facility,  
4 but when you'd get the, data that's actually not the case.

5           So I had an answer, but I'd much rather hear your  
6 answer to whether that's something that's come up in the  
7 conversations, if that's something you guys think about.  
8 So just generally that.

9           MS. ROSSI: Does somebody want to respond on the  
10 Panel. You can go ahead, Colin.

11           MR. BAILEY: Yes. Am I on?

12           All right.

13           Hi, everybody. Colin Bailey with the  
14 Environmental Justice Coalition for Water.

15           I'll speak to points momentarily. But in  
16 response to the question, this is a conversation that  
17 we've had infrequently, but it's an important one. It  
18 comes up in a variety of contexts. And through our work,  
19 which is statewide, you'll hear a little more about it  
20 later, we've worked -- is it not working.

21           MS. ROSSI: I'm not sure if it's on. Let me give  
22 you this one.

23           MR. BAILEY: I've got green light.

24           Am I louder in this one?

25           (Yeses.)

1           MR. BAILEY: All right. So hopefully that was  
2 audible to the folks online. I think everybody in the  
3 room heard me all right.

4           Jumping off where we left.

5           Our organization has worked quite a bit with  
6 academics, and that has been a tension point with some  
7 academics, largely because there is a possibility that in  
8 the community-based participatory action research  
9 framework, which posits communities largely in control of  
10 not only the questions asked, but the research design, the  
11 conditions underwhich data are collected, and ultimately  
12 to your question, the circumstances underwhich those  
13 data -- or rather the results of the analysis are released  
14 can be intentioned with academic freedom, with the  
15 ambitions of the person who's publishing them, and those  
16 things have to be worked out in advance.

17           And it gets even more complicated when you have,  
18 you know, universities who technically own the results  
19 themselves. And their can be tension even within the  
20 institution.

21           We tend to try to put -- put that question up  
22 front, and, in fact, have drafted memorandums of  
23 understanding -- memoranda of understanding to try to deal  
24 with that issue. It's actually not come up as an acute  
25 problem.

1 Another answer to your question is just by way of  
2 anecdote. I was just telling my colleagues over lunch  
3 that when I was in law school, I worked with Communities  
4 for a Better Environment in Huntington Park. And there  
5 was a circumstance wherein the -- through a lawsuit, the  
6 CBE was able to get the State to come in and do some  
7 sampling. In that instance, I think -- I can't remember  
8 if it was Exide. But it was one of the large -- one of  
9 the large polluters right adjacent to a school.

10 And among the demands on behalf of the community  
11 were we, as the community members, need to choose the  
12 sites -- the places where you actually take samples.

13 Community members were quite aware, because they  
14 know the people in their neighborhood who work at the  
15 school, that those people were at the school the night  
16 before the sampling was supposed to take place, scrubbing  
17 the place clean.

18 The one community member who was allowed, due to  
19 the demands of the advocates in the community to choose a  
20 sampling site says I know who cleaned this place. I know  
21 where they wouldn't check, because I know what they would  
22 do and they wouldn't do.

23 So they went up to one of the gratings in one --  
24 the bathrooms that was high up. And they said put your  
25 sample right back there. And that was the one out of the

1 dozens of test sites that came back overwhelmingly above  
2 the standard that was the subject of the underlying  
3 lawsuit.

4           So that's just to underscore the point that there  
5 can be errors of perception on both sides of that  
6 equation, and we do best when we exercise the wisdom of  
7 both the researchers and the community partners to make  
8 sure we're getting to the right results.

9           CHAIRPERSON SCHWARZMAN: Nancy, did you have --  
10 you said you had some thoughts about it too. Do you want  
11 to contribute anything to that discussion?

12           MS. BUERMAYER: Nancy Buermeyer with the Breast  
13 Cancer Prevention Partners.

14           Yeah. I mean, I think the answer that we gave  
15 to -- because we were in talking to the head of CDPH about  
16 getting money to do this project. Like, we were part of  
17 the advocacy to get the million dollars. And I'm really  
18 excited at all that has been accomplished, and really wish  
19 we could have got it on an ongoing basis, and need to keep  
20 talking about that.

21           But yea, I mean, the answer -- because they  
22 were dealing with sort of bad press at that moment around  
23 Exide I think. And just saying the way to do it is to  
24 engage the community from the beginning and explain that  
25 not all the results are going to look exactly the same and

1 may not look exactly like what you want.

2 I mean, the challenge is that for data that's  
3 produced by the State, you can't not publish the data,  
4 right? Like it has to be public. So I think that sort of  
5 understanding up front, what may or may not come up. And  
6 I love the idea of talking to people about how to do the  
7 sampling, because, you know, who thinks they're going to  
8 clean the school the night before. Apparently, the people  
9 the community did, right?

10 So that was sort of where we were coming from is  
11 just the importance of building that sense of trust. I  
12 mean, we also heard from folks that we talk to a lot of  
13 distrust of public agencies, and that's a challenge. And,  
14 you know, to the point where people, like, we won't  
15 believe those data. I'm like, really?

16 Because, yeah, it's -- I mean, it was really  
17 shocking to me how burned communities feel by the State  
18 agencies. And I think that's a much bigger problem than  
19 the Biomonitoring Program, but I think it potentially  
20 could have an impact.

21 MR. BAILEY: One quick segue, which actually a  
22 pass off to my colleague Esther here, is that part of the  
23 answer, which you describe there, is making sure that, you  
24 know, scientific method and the production of knowledge  
25 itself is a site of constant contestation, right? There's

1 debate to be had over this. And one of the -- one of the  
2 best thing we can do is have a diversity of inputs.

3           So among the things that we can do in -- from an  
4 environmental justice methodology is empower environmental  
5 justice communities to be scientists. And with that, I'd  
6 love to pass it off to Esther to describe some of the work  
7 that Comite Civico Del Valle has done in direct air  
8 sampling, which I think gets to your point.

9           MS. BEJARANO: So if I can hold it, it would be  
10 better.

11           So, yes, the more community understand science, I  
12 think the more they are able to be part of advocacy and  
13 action efforts. But as I mentioned earlier, we started  
14 back about 10 years ago, when we had a state  
15 implementation plan and our air basically did not meet  
16 State standards.

17           So we had a group of individuals residents that  
18 were just ready. They were on board. They were just  
19 tired of looking at websites that were not working, that  
20 were not relaying information, that were not accurate.  
21 And so that's when the -- I think -- and I'm going to  
22 shout out Catalina Veja she says you know what, we were in  
23 a public meeting and says, you know, what we are going to  
24 put monitors out in our community.

25           And everybody started laughing, right, who thinks

1 that residents are going to be able to put out monitors  
2 and locate them in areas of concern to them. And so  
3 that's what we did with IVAN Air. We partnered with CDPH,  
4 Paul English and the Health Tracking Program, which have  
5 been very -- not just great partners, partners who really  
6 care. And we feel they really care about communities as  
7 in Imperial County.

8           And so initially, we started really going to  
9 those that were there already, that were already at the  
10 front line of city meetings, of talking to local  
11 government. And so we came out with community air  
12 monitoring network, which we are now -- so basically, it's  
13 guided by residents. It's guided by members of the  
14 community, where each community is -- has two CSE members.  
15 They guided -- we went out and did a mapping and assets  
16 one day. We went out, and went out, our residents went  
17 out, and they had, obviously with training, and guidance,  
18 and education went out to their communities. They said  
19 this is where we are affected. They say this is where we  
20 want to monitor -- a monitor site.

21           And so that's how we did it throughout the whole  
22 phase of our program. For example, we have a school that  
23 was out maybe 30 miles away from our local county  
24 government monitor. And so they were checking with the  
25 school flag program. They have it -- we have it

1 implemented.

2           Their flag color was going to be very different  
3 if they would check a monitor that was on a roof top of  
4 the court house, and they're out by a feed lot by  
5 industry, by semis, out by fenceline to ag. And they had  
6 to read the monitor that was 30 miles away that is in the  
7 inner-city and that's on top of a rooftop of their local  
8 courthouse. And so what that said, monitors were located  
9 and are still being located where residents need them,  
10 where they come out, and they gather, and they said this  
11 is where we are most affected, and this is where we want  
12 to monitor.

13           And so efforts have not been -- challenges have  
14 been definitely on board with, you know, what happens when  
15 this project program ends? What happens with funding for  
16 the monitors that are, for example, in eight schools in  
17 Imperial County? Those eight schools are taking a lead  
18 daily, flying up a flag, relaying information, reducing  
19 exposure to the children that are right by feed lots,  
20 right by diesel emissions. And so children who have  
21 asthma, they stay inside they exercise inside, but also we  
22 have other schools in Imperial County, right?

23           We're only targeting eight schools with that --  
24 for example, the school flag program, we have 70 schools  
25 that are -- that are still part of the what we -- we need

1 to bring on board.

2           But yes, it was guided by residents. Residents  
3 are now scien -- what do you call them? They're  
4 advocates, and they're basically completely overwhelmed  
5 with the fact that they have a monitor that is next door  
6 to their site. They're -- they can pass by, and they can  
7 go online. They can go out on IVAN Air, and they can see  
8 the array of monitors, and then this is where I'm going to  
9 be this weekend. This is where my grandfather, who has  
10 cardiac problems is going to be on Saturday. And so they  
11 can receive an alert, and they're not offline. They're  
12 not connected to sometimes sources of where maybe  
13 sometimes government does not want them on, because it's  
14 going to exceed, right -- exceed a level of air pollution.

15           But, yes, I think that that -- that is really how  
16 it was led. It's completely led by CSE members. And  
17 those members still guide it, and so happy to share that  
18 with you. You can also go on IVAN online.

19           MS. GRACIA-SANTIAGO: Can I add something?

20           First, thank you for having us and me. And  
21 I'm -- I'm hearing a lot of the same stuff like that I was  
22 going to say - so I'm really glad we're all saying it - is  
23 yeah, we need to -- this process needs to be community  
24 driven. Community folks that have lived in these  
25 communities, they're the experts. They don't -- they may

1 not use the same terminology, the same language as we do,  
2 but they know what nose bleeds are. They know what asthma  
3 looks like. They know, damn, I got this rash the other  
4 day was flaring, and the refinery -- uh-oh, I said damn.

5           Sorry

6           (Laughter.)

7           MS. GRACIA-SANTIAGO: I work with young people.  
8 But what I'm trying to say is that the community expertise  
9 is already there, right? And so I think that we also need  
10 to shift how we're looking at -- how we approach  
11 communities in thinking does biomonitoring want to keep  
12 studying folks in these communities, or are we going to  
13 actively try to make some policy -- use this data to  
14 change policy. And I think that that's where we really  
15 should be focusing on.

16           You know, the data needs to be intentional. And  
17 so that it's not affirming what communities already know,  
18 but rather it's supporting their efforts, and how they've  
19 already been activists in their, you know, neighborhood.

20           And so with that, it goes back to what Colin was  
21 saying in regards to when these studies begin, it needs to  
22 be community driven, and it also -- there needs to be  
23 clear goals. What are the goals that we want, and how are  
24 we going to use this data? And it needs to be  
25 transparent.

1           One of the things that I was wondering in the  
2 report back from the diesel project was the folks that  
3 participate in the study will receive their -- their  
4 results, if they ask for them. And so, in my head, I was  
5 like why don't -- why don't we just -- why don't we  
6 just -- why isn't -- why do they have to ask? Like, they  
7 should just be given to them. It shouldn't be asked. You  
8 should just provide it immediately. That's an immediate  
9 support that you can offer. I have a lot more to say, but  
10 I'll stop there.

11           MS. BEJARANO: Yeah, and I can just share on  
12 that, when we did our biomonitoring study - I don't know  
13 Sharyle, it was probably six years ago - we did have  
14 residents. We had a day where a physician was -- was on  
15 site, and we had scheduled appointments for each resident,  
16 each participant. And that participant went in and the  
17 doctor read them their results. I was actually one of the  
18 participants, because we had a family that was -- did  
19 not -- wasn't able to show up.

20           And so really understanding what -- you know,  
21 what it's even relaying, right? You can ask questions to  
22 the doctor. If you have some concerns, she's there in  
23 front of you. And so that's what -- you know, it was just  
24 a great experience. I remember, they told me you've got  
25 to stop smoking.

1 I said, I've never smoked in my life. And so to  
2 me, that was very daunting is am I going to die of lung  
3 cancer? Why is she saying that I'm smoking? I'm going to  
4 die. I have to stop smoking. So if I wouldn't have had  
5 that doctor there to really ask that question, does that  
6 mean that are my lungs okay? Because you're saying that I  
7 have to stop smoking, but I've never smoked in my life.

8 And so I think that's very -- that's a very good  
9 point making sure that those participants are able to go  
10 back, and ask those questions at least to that extent in  
11 having that doctor on site or somebody who can relay  
12 feedback.

13 MS. HOOVER: Duyen wanted to interject about the  
14 results.

15 MS. KAUFFMAN: Hi. This is Duyen Kauffman with  
16 OEHHA. I totally agree with you that -- you know, the  
17 principle of right to know of results is very -- it's a  
18 founding principle of Biomonitoring California. When we  
19 were created, advocates really said people deserve to know  
20 their results. You know, a lot of scientific research in  
21 this country is paternalistic, and people -- you know,  
22 what they don't know, won't hurt them. And they won't  
23 know what to do with the information. But our advocates  
24 said, no, you can trust people. People know how to --  
25 people are smart, people can process this information.

1           So we -- it's a very clear part of the informed  
2 consent process, that we ask them do you want them? And  
3 we do have people who say we -- they don't want them.  
4 They say, I want to help you. I want to help my  
5 community. I don't want to know. I have enough things to  
6 worry about. Please don't tell me. So we don't force  
7 them on people, but we definitely -- that's just a guiding  
8 principle that we offer them to everybody, and it's quite  
9 unique actually for a biomonitoring program. So we're  
10 totally in agreement with you, and thanks for raising it.

11           MS. KAYANO: I have a little bit scenario than my  
12 colleagues here. If you have a contaminated site, and we  
13 do have one in Riverside called the Ag Park, that was  
14 heavily laden with PCBs, and DTSC came down and pretty  
15 much said nothing -- it was safe. That what they found  
16 was safe and they declared the land clean after about two  
17 years of clean up, because it wasn't safe to begin with,  
18 but they -- developers cleaned it up under DTSC.

19           The residents had concerns. They kept on  
20 bringing it up. And, of course, what I wished happened  
21 didn't happen until much later, where CDPH did come in and  
22 sit down with the residents and talk to them about the  
23 possibility of PCBs being in their body, and also the --  
24 maybe not being in their bodies at high levels, or not  
25 being in their bodies as all.

1           And I think when you have a contaminated site,  
2 there's so many things that you have to think about, the  
3 value of the homes, if this gets out, so where is the  
4 responsibility then? So even as CCAEJ, we have to take  
5 some responsibility too. But how do we -- how do we work  
6 with the agencies and the State agencies, because I do  
7 believe that the residents are the experts, but there's  
8 always that -- that they not be as severe as we think. I  
9 mean, I think that's possible.

10           And Russell, you can speak to it, because Russell  
11 worked on this. But I think if CDPH had come in at the  
12 very beginning and worked with DTSC about the contaminated  
13 site and the possibilities. I think that would have been  
14 a much better outcome for the residents and for everybody  
15 involved. I mean, I don't know. I'm just thinking. It  
16 just shouldn't be just one agency coming in and dictating  
17 everything.

18           MR. BARTLETT: Russell Bartlett, CDPH.

19           So we came in much later. You're absolutely  
20 right, Jean. And that was because our process works on a  
21 petition. And we were not even aware of the site at the  
22 time when a lot of the issues were being spoken about in  
23 city hall meetings, correct?

24           And -- but the city and CCAEJ together worked to  
25 get us involved. And then once we -- once we were there,

1 we were able to have an open discussion, and we still are  
2 looking into those things, looking into those issues as  
3 well. And I think what you're saying has a lot of value,  
4 because I think what it sounds like a cooperation in a  
5 sense. Whereas CDPH, in a sense, where we have a lot of  
6 the knowledge about these contaminants, in particular to a  
7 site, we can describe and we can discuss about what the  
8 potential exposures could be and the results of that. So  
9 bringing biomonitoring into that could be something very  
10 powerful.

11 But I think where -- when I think about that, I  
12 that the CARE Program is actually on a really good  
13 direction, because when you examine a chemical in a  
14 person's body, you have to have something to compare it  
15 to. And I think the direction we're going is we're going  
16 to be able to do that regionally in California, so then we  
17 can actually have a really good discussion with those  
18 people, that are next to a site, and actually show them  
19 yes or no if this is elevated or not elevated. And that  
20 will be something that will be better for everyone. Does  
21 that -- does that sound right? Is that where you're  
22 thinking too, Jean?

23 MS. KAYANO: Yes. And that's where I thought  
24 biomonitoring could come into play earlier on rather than  
25 keep on testing the soil, and keep on -- because that's a

1 hit and miss. You know, if you have 63 acres, and they're  
2 only taking one sample, in the middle of that acre, that's  
3 not enough. I mean, now, it's literally over 1,500 or  
4 more. It's closer to 2,000 now.

5 So obviously, there's a problem, but it would  
6 have helped if Biomonitoring was at the very beginning  
7 with CDPH and say, hey, let's see if it is in your body.

8 MR. BARTLETT: You're right. It's actually up to  
9 3,000 samples now.

10 MS. KAYANO: Okay. Thanks for letting me know.  
11 (Laughter.)

12 MR. BARTLETT: You're welcome.

13 MR. BAILEY: Colin again. I have a question, I  
14 think, is probably directed at the more technically minded  
15 folks in here, probably the Committee members and the  
16 Biomonitoring staff. But it's kind of two pronged. So  
17 given the geographic focus, I assume folks are familiar  
18 with what's going on in the Salton Sea, which by and large  
19 is an ecological disaster of pretty enormous portion, and  
20 entirely of our own making on both ends of that equation,  
21 not least of reason which that the Colorado River waters,  
22 which have fed it, are now being siphoned off to the  
23 wealthy coastal communities in San Diego, much to the  
24 detriment of the region, its health, the birds and, of  
25 course, the people.

1           So part of the question then predicated on that  
2 is whether there are elements of the resulting exposed  
3 playa that when they become airborne, which is among the  
4 things that Comite Civico Del Valley is testing, which are  
5 a mixture of toxic sludge from urban runoff, from  
6 agricultural fertilizers, pesticides, and other manner of  
7 thing, not all of which are known to us, which have  
8 potentially synergistic properties, how -- the technical  
9 question is how much of that would be transferable, and  
10 actually show up in what you all study in the blood and  
11 urine samples?

12           The second question is more of an operational  
13 question. I was discouraged, as I assume others were, by  
14 Dr. Wu's presenta -- Dr. Wu's presentation of the funding  
15 scenarios, which show not only a decline, but the, at  
16 least temporary, stopping of the EJ focused component,  
17 just as we're getting this great, you know, start. And  
18 the question there is, you know, to what degree do you  
19 remain nimble enough to respond to real-time policy  
20 decisions that leave particular regions acutely exposed,  
21 as in those communities around the Salton Sea.

22           And maybe that's just one emblematic example that  
23 you can describe kind of how it is that you  
24 operationalize, how you mobilize in response to acute  
25 hazards?

1 DR. WU: Those are excellent questions. This is  
2 Nerissa. And unfortunately, I don't have good answers for  
3 that, because it is a -- it's a refrain we talk about all  
4 the time. There are so many chemical panels, and the ones  
5 you noted, pesticides and urban runoff, we do have a lot  
6 of laboratory capability. But as our Program shrinks, it  
7 is very hard for us to support that long list of chemical  
8 exposures. And as you know, every day there are new  
9 chemical exposures that we need to worry about.

10 Chemical companies have all day to make up new  
11 chemicals, and we just can't keep up. So there's a real  
12 demand for this. I know our labs, maybe they could speak  
13 to this, the move towards non-targeted screening and some  
14 of these classifications of chemicals. I mean, developing  
15 new lab methods to keep up with that really is an inherent  
16 and very important part of biomonitoring, and something  
17 that we hope to be able to support. The same with the  
18 ability to do environmental justice work. This is  
19 critical. These are the vulnerable communities who are  
20 disproportionately impacted. And as we've seen from the  
21 ACE work, it's so important to focus on communities to  
22 which information is not getting or where we really need  
23 to raise awareness of what the health risks may be.

24 So they are priorities to us. We'll continue  
25 to -- looking for funding and trying to increase our base,

1 and hope to collaborate with the people in this room and  
2 beyond on creative ways that we can bring those -- or  
3 maintain those pieces of the Program.

4 CHAIRPERSON SCHWARZMAN: Maybe I'll say something  
5 just for a moment about technical question you asked and  
6 others may want to improve on my answer.

7 But I'd say there's a couple mechanisms for how  
8 airborne contaminants can get into people. One is, you  
9 know, the direct one that we think about is inhalation,  
10 but the particles have to be quite small to get absorbed  
11 by the body by inhalation. So what may be a larger source  
12 is when you get the disbursement of contaminants via dust,  
13 then it's landing on every surface.

14 And so there's direct dermal absorption, but  
15 there's also the idea of like you have a dirty hand and  
16 then you eat a sandwich, so there's multiple mechanisms of  
17 exposure when something becomes airborne like that in  
18 dust. And we may think about air quality and that kind of  
19 contamination, but there's probably other routes that are  
20 equally or more relevant.

21 MR. BAILEY: Thank you.

22 MS. HOOVER: Is this working now?

23 Okay. Yeah, Colin I'll just -- I think what you  
24 were asking, and just to clarify, were you asking about  
25 how much we can study in terms of looking at a whole

1 mixture of what might be there? Was that your question  
2 like what our capability is to actually measure what's  
3 there, the whole mix of various things? Were you asking  
4 that, or could you clarify what your technical question  
5 was?

6 MR. BAILEY: Yeah, you may have actually detected  
7 an element of my question that I didn't originally intend,  
8 but it's a good part of it. So please do answer that.  
9 The question was really about with specific reference to  
10 the type of airborne particulates and the mixture, do you  
11 have the technical capacity? Well, actually the first  
12 question was to Dr. Schwarzman's point, will that pass  
13 through in -- and be detectable in blood and urine? The  
14 second very good question that you kind of added to it is  
15 what is your technical capability to actually decipher  
16 what's -- what that exposure rate is?

17 MS. HOOVER: Yeah. So like Meg was just saying  
18 about the mechanisms. And part of it is it depends what's  
19 in there, if it gets absorbed or not. But in terms of our  
20 capability to look at more than just a few targeted  
21 contaminants, this is something that we've been really  
22 interested in for a long time.

23 One thing that our -- the CDPH lab has done is  
24 they've expanded the -- their metals panel. So now we  
25 have quite a range of metals. I imagine that would be a

1 relevant, you know, mixture of contaminants in that  
2 particular scenario.

3           But the other thing we're interested in, and it's  
4 actually one of our SGP topics that we've been coming back  
5 to is the so-called non-targeted screening, where you try  
6 to actually look more broadly. Now, it's -- ultimately,  
7 it's great. You know, ultimately the goal of what we're  
8 going to do with that is great, but it's step-wise. So  
9 we're really starting with more semi-targeted screening  
10 where you looked within a certain class, but it really has  
11 the power, and we're already seeing that in some of the  
12 studies, to really reveal that there are lots of things  
13 there that are not on our targeted list, lots of things of  
14 concern.

15           So that's something that we're really interested  
16 in pursuing in real studies. And there's some ethical  
17 issues about, you know, how do we return results like  
18 that? It's a little bit uncertain what we're measuring in  
19 terms of information on it. So that's a discussion we  
20 hope to have is if we try to do studies like that. Under  
21 our scenario of our mandate and our commitment to  
22 returning all results, that can become a little bit more  
23 difficult communication-wise, but -- so we are -- we are  
24 looking at that. We're very aware of the synergistic  
25 issues and the desire to more broadly measure and we're

1 moving in that direction.

2 MR. BAILEY: Thank you.

3 CHAIRPERSON SCHWARZMAN: Yeah, Mel.

4 PANEL MEMBER KAVANAUGH-LYNCH: So I have a  
5 question for --

6 Oh, sorry, Mel Kavanaugh-Lynch.

7 So thank you very much to the panelists for being  
8 here. And I agree completely with what several of you  
9 have said about the need to involve community from the  
10 beginning, have community be a part -- control the  
11 questions that are asked and the methods that are used and  
12 things like that.

13 And I think we have to face the reality that the  
14 Biomonitoring Program is not doing that, and I'm not even  
15 sure can do that. So to the extent that, for instance,  
16 the CARE Study is one that has been carefully designed by  
17 Biomonitoring staff. Keeping in mind community concerns,  
18 and scientific concerns, but it's really the Biomonitoring  
19 Program that has determined what questions are going to be  
20 asked, and how they're going to be asked, and methods to  
21 be used. And I don't even think that they could even talk  
22 about not owning the data. They would -- that they would  
23 have to own the data.

24 Given those realities, how can the Program work  
25 more effectively with communities to address their

1 concerns, and to share what ownership there is available  
2 to share?

3 MS. GRACIA-SANTIAGO: I can go. Yeah. Totally.

4 So I was talking about this with our team. It's  
5 like, oh, I have a feeling they're going to be like, oh,  
6 we can't do everything you want us to do.

7 Not like -- I know that's not what you meant, but  
8 I meant in the sense that I think that's why from the very  
9 beginning, biomonitoring and just in general agencies,  
10 regulatory agencies, need to be very clear when they're  
11 communicating and partici -- and working with the  
12 community on what are the goals here, and prioritizing  
13 communities, right? Because that's who we're -- who we're  
14 working for. That's who we're advocating for.

15 So there needs to be transparency and community  
16 like agreements, goals. Like, we're working together.  
17 This is a mutual relationship, right? Like a lot of folks  
18 have said, our communities have been studied to death.  
19 Like, we -- you know, back in 2012, when the Chevron  
20 refinery fire happened, over the -- more than 15,000  
21 people went to the hospital.

22 And rather than -- and so all of the tests that  
23 were done on those folks that went to that hospital, all  
24 of the records disappeared, because then that hospital  
25 shut down.

1           So we have -- the data has been there that -- we  
2 have the data, and it's just because there isn't enough  
3 community involvement, there's not that next step of doing  
4 that policy change, right?

5           So obviously, biomonitoring can't write-up their  
6 own policy, but we want allyship, right? So if you have  
7 that data, come with us to the Board meetings, come with  
8 us and share your information alongside communities, so  
9 that it's not just communities speaking up, right?

10           So we want that allyship. If you're going to  
11 come and study our communities, also show up to the  
12 political -- to the political landscape with us, because  
13 we've been going back to -- you know, right now we're  
14 trying to work on refinery emissions to make sure that  
15 crude oil, you know, it doesn't come in more.

16           And because we were overridden by a State  
17 policy -- but again, all of that data is there of how  
18 asthma is so prominent in our communities. There's  
19 this -- it -- there's this mistrust between government and  
20 communities.

21           And I think that that's -- it goes back to what I  
22 was saying originally that we need to be intentional about  
23 how we work with community, and what exactly we want that  
24 outcome to be.

25           And to not be afraid and speak up, and the -- you

1 know, speak truth to power and recognizing that industry  
2 is very in our regulatory and government. And we need to  
3 recognize that, and we need to look past that, and still  
4 actively speak up on behalf of the communities that we're  
5 studying and researching.

6 And to kind of just touch a little bit on  
7 something that was said earlier, someone mentioned, you  
8 know, using 617 or AB 32 money to continue funding  
9 studies, so AB 32, the money that was set aside was to  
10 uplift and support the communities being impacted right,  
11 front-line communities.

12 If you're going to attempt to use that money to  
13 study these communities, again there needs to be that  
14 outcome of something to immediately support that  
15 community.

16 You -- we can't use that money that's been set  
17 aside to support front-line communities to continue doing  
18 research, if there is no immediate outcome that community  
19 can look forward to.

20 It goes back to 617, and AB 398. You know, AB  
21 397, the cap-and-trade extension, it really harms  
22 front-line communities. And something that -- something  
23 that could have -- when we're thinking about 617, it's  
24 like, okay, that money is there now, but we should still  
25 recognize that where it's coming from isn't -- isn't where

1 we should be moving towards. You know, we shouldn't be  
2 relying on this funding.

3           And that's -- and that's something, you know,  
4 that as a person who's working on climate adaptation and  
5 resiliency, I also have to keep in mind, because a lot of  
6 that funding is for resiliency and adaptation efforts.  
7 But I just wanted to make it clear that if we're going to  
8 say we want to work with communities, there needs to be an  
9 allyship, as well as mutual benefits in regards to -- I do  
10 think that, you know, stipends are very important. You  
11 know, a lot of our communities are -- here, in Richmond,  
12 I'll speak a little bit on like we have the refinery. We  
13 have open coal at our port. We have coal moving in  
14 through our communities. We have crude oil moving in  
15 through our communities. We have three major freeways.  
16 On top of that, our folks are facing gentrification.  
17 We're facing, you know, lack of access to food, lack of  
18 green spaces.

19           So asking us to now participate and log  
20 everything that we're doing on a daily basis is a lot of  
21 work. And it's a lot on our -- on our community leaders.

22           So we need to recognize that, and be grounded and  
23 meet our folks where they're at, and support, so that they  
24 can have this like community research and participation.

25           MS. BEJARANO: Yes. Thank you. Yes, I would

1 recommend not coming in with an agenda. Maybe coming in  
2 with a plan, and seeing if we can -- if it's going to be a  
3 certain community, how can we incorporate it that fits  
4 your community needs? A lot of the communities do have a  
5 lot of data. But a lot of communities have never --  
6 they're -- they're unforgotten communities.

7           There's no cookie cutter that's going to fit  
8 every single community. And so maybe coming in with some  
9 of the numbers and how do you --

10           CHAIRPERSON SCHWARZMAN: Can you just watch  
11 the --

12           MS. BEJARANO: How does your community want  
13 recommendations? How does you community want to gather?  
14 How does -- so maybe asking those questions initially,  
15 would -- I think would be very beneficial.

16           MS. KAYANO: Well, I certainly agree that when  
17 you're going to have the residents and families help  
18 monitor, they should have some stipend. That's one thing  
19 that seems to be missing. I know in Seattle they did a  
20 housing project, and they wanted the community to be  
21 involved, but they did it differently. They did pay the  
22 community to be there for their -- for what they wanted to  
23 see in their community. They paid for child care. They  
24 paid for their time involved.

25           And at the end of the day, those residents felt

1 like they helped design their own community, and they  
2 bought into it. And they felt very proud, because they  
3 were part of the design, and they were also paid, not a  
4 whole lot, but to say that they were important enough.  
5 That their -- that their ideas and what they wanted to say  
6 were important to the developers.

7 Well, the same thing can happen here. I think if  
8 you want to know what's going on in the community, you  
9 want to help them, and they -- and they're helping you,  
10 then I think they should be paid for the time that they  
11 have to monitor, because it's a lot of work. It's a lot  
12 of work doing the air monitoring.

13 MS. BEJARANO: Especially, if you do want a  
14 community to stay on board and not fallout. I know that  
15 for us, you've got to be very careful. I mentioned the  
16 home visitation earlier that how do you come in to a home  
17 of maybe a family of 50, but what number do you have at  
18 the end? And what are the results, right? They won't be  
19 the same, because if you don't provide, you know, maybe a  
20 nice lunch, or nice -- maybe a stipend or something.

21 Obviously, just for travel and for day care, they  
22 will fallout, and then you will basically have this -- you  
23 know, the results not being real true to what the needs  
24 were. I know that I've seen that in other projects that  
25 that -- that were done locally in Imperial County.

1           PANEL MEMBER SUÁREZ: Just a question -- just to  
2 follow up on that. Just to clarify, are you referring to  
3 participants or are you talking about community health  
4 brokers, community researchers with payment?

5           MS. KAYANO: No, the actually residents.

6           MS. HOOVER. Microphone.

7           MS. KAYANO: The participants themselves, because  
8 there's air -- AQMD has this air monitoring program they  
9 wanted us to do, and they were only going to pay \$100 for  
10 the entire year to a resident to help monitor. And they  
11 had to use a computer. They had to do it every day. They  
12 had to -- and, you know, that's a lot of work. And I  
13 just -- I just think that's just not enough. And they're  
14 going to be getting tons of data from it. I'm not sure  
15 they're going to have anything done for them. So, I mean,  
16 I think that's what I'm talking about.

17           CHAIRPERSON SCHWARZMAN: I think Jenny had a  
18 question.

19           PANEL MEMBER QUINTANA: Hi. This question is for  
20 first the two speakers to ask you following up on what you  
21 said about the time is now to make -- take action, not to  
22 do further research studies, so to do something for the  
23 communities. And so I guess my question for you is do you  
24 see value in biomonitoring in demonstrating that action  
25 has worked. I'm thinking of specifically like blood lead,

1 where I think every professor here shows this graph of  
2 blood lead in America -- American kids before they banned  
3 lead in gasoline. And then as soon as they banned lead in  
4 gasoline, it just drops, drops, drops, drops. It's a very  
5 powerful reminder of how policy can really work.

6           And so my question to you is do you see value to  
7 the Biomonitoring Program maybe to show what happens if  
8 you reroute the truck traffic away from schools, you know,  
9 before and after like to help show it? Is that -- or is  
10 that just still taking money away from what might be  
11 further used to do better. I'm not sure. I just want to  
12 have your opinion on that, if possible.

13           MS. KAYANO: Yes, I think it would help. That's  
14 what we're fighting right now is the truck traffic, and  
15 we're finding we want to have a restricted truck route for  
16 the Mira Loma Village and we're not getting it. Instead,  
17 we're getting additional warehouses. And they're just not  
18 getting it that this is a very dangerous thing for the  
19 families. There's -- it's very toxic. And yet, both  
20 counties are into this let's build as many warehouses as  
21 we can, because we have to deal with the Port of L.A.  
22 L.A. is going to expand. That's going to expand the  
23 warehouses in our two counties, and it's all based on  
24 jobs.

25           The sad part is that the jobs are not bringing

1 prosperity to both counties. In fact, we have tremendous  
2 growth. Three times as much as maybe the entire nation.  
3 The poverty rate has gone up, prosperity has gone down.  
4 So something is wrong, and that's because the warehouse  
5 workers in the warehouse are part-time. They're temporary  
6 workers. They're abused. They get paid underneath  
7 the -- I mean, they're just -- it's just a lot of wage  
8 theft.

9           So you have to understand that this thing that's  
10 going on with the industry, the warehouse industry, the  
11 logistics, the goods movement is not a good thing. I know  
12 we need them, but I mean, it's not a good thing. We need  
13 to take care of that diesel exhaust for one thing. We're  
14 not against warehouses. They should be green. The trucks  
15 should be green. And I think if we can show that, hey,  
16 people in -- they are getting it in their -- in their  
17 body. I mean, it's kind of like the cigarettes, right?

18           CHAIRPERSON SCHWARZMAN: I want to break here and  
19 hear from our second two discussants, our last two  
20 discussants, and then we can pick up the conversation  
21 where we left off. So, Laura

22           MS. GRACIA-SANTIAGO: Hi, everyone my name is  
23 Laura.

24           I'm the CARE coordinator, CARE -- oh, well you  
25 already said that, but I'll just say it again because I

1 already started, climate adaptation, and resiliency  
2 enhancement program. So the Communities for a Better  
3 Environment is a statewide organization. We work out of  
4 Wilmington, which is a large refinery community. It has  
5 neighborhood oil drilling, as well as it's close to the  
6 Long Beach Port, a lot of diesel trucks running through as  
7 well. We have SELA which is also a very industrial  
8 corridor with a lot of diesel trucks. Sorry, SELA stands  
9 for South East Los Angeles, Huntington Park.

10 We work out of East Oakland, which is also a very  
11 industrial corridor. Right now, they're fighting a huge  
12 crematorium that will be burning 365 bodies a year. On  
13 top of that they're very close to the airport, the AB&I  
14 Foundry and, you know, a lot of freeways.

15 And then Richmond, which I already said a little  
16 bit about, we have the Chevron refinery right here next  
17 door. We have coal running through. We have crude oil  
18 running through. We have the freeways, and on top of all  
19 the other social justice issues that we deal with. And we  
20 have four other refineries in our county. Yeah. So  
21 that's a little bit about the communities that we work out  
22 of.

23 And I'm mostly here to -- I know, I've been  
24 talking a lot about Richmond, but I want to highlight all  
25 of the other communities that we've been organizing. And

1 our community leaders have been involved in huge -- you  
2 know, huge battles. Our youth program down in Wilmington,  
3 you know, sued the City of L.A. for rubber stamping  
4 Tesoro -- I mean, refinery permits. They won -- they got  
5 a settlement with the City of Los Angeles. They're not  
6 getting counter-sued by the oil industry.

7 But, you know, our Huntington Park office right  
8 now is dealing with the 710 expansion project, so we're  
9 trying to slow down that process, to get a lot of  
10 community feedback. Our East Oakland office, like I said,  
11 is working on the crematorium here in Richmond. We're  
12 working on our refinery emissions cap to prevent more  
13 crude oil from coming into our community.

14 AB 398 really, really messed us up, but our --  
15 this goes back to that topic -- to what I mentioned about  
16 mistrust between regulatory agencies and community  
17 members, is that we've been, for a long time, working on  
18 Rule 1216 here in Richmond, and along with a lot of Bay  
19 Area allies in -- and just capping pollution, making --  
20 and again, it's a preventative measure. You know, it's  
21 not saying, you know, just stop producing. It's saying at  
22 this level stay right here right now.

23 So find whatever else you need to -- find  
24 whatever technology you need to make sure that you stay at  
25 this level. And so we've been organizing, and we've been

1 showing up at these spaces, and there's a lot of push-back  
2 within our air district in saying, oh, AB 398 is  
3 overriding us, but AB 398 is focusing on -- it says that  
4 you can't limit greenhouse gases, but we're saying we're  
5 just trying to cap it, and we're also focusing on  
6 particulate matter.

7           So that was another thing I was going to  
8 highlight. You know, we're talking a lot about diesel  
9 particulate matter, and diesel exhaust. But here, there's  
10 a lot of -- there's particular toxins that come out of the  
11 refinery. So I'll be repeating this over and over again.  
12 But we really need to look at cumulative impacts. I know  
13 that in order to do a study it has to be, you know, the  
14 narrower the best. But our folks aren't just dealing with  
15 one thing. They're dealing with a lot of different things  
16 out once.

17           And the -- to go back on one of other question  
18 that was brought up earlier, how can biomonitoring  
19 support, you know, the work that we've been doing, is --  
20 it's -- it's working with community organizations that  
21 have been organizing here, to make sure that you're not  
22 overstepping and being respectful of the efforts that  
23 have -- the community has already driven.

24           I've got a lot of mixed messages about, you know,  
25 the Google air monitoring going on, as well as some other

1 air monitoring from big orgs that come into East Oakland.  
2 But our community members have been odor logging for a  
3 very long time around AB&I Foundry. And when we started  
4 working with the air district, we also noticed that the  
5 days that we were odor logging, after a while, they  
6 started not being as bad as when we had first initially  
7 started the project, and that's because we feel like  
8 someone -- someone started telling AB&I, hey, we're going  
9 to be coming around often.

10 So that's why it really needs to be community  
11 driven. It needs to be community led. And so I just --  
12 I'm going to keep going back to that of asking  
13 biomonitoring, you know, what -- what is our ultimate --  
14 you know, what are we for? Are we here to support  
15 community? Are we here to just do research and study?

16 If not -- if that's the case, then I don't know  
17 if that's very helpful. You know, the study and -- the  
18 study and the research is helpful, if it's working -- if  
19 it's alongside community, and it's improving the  
20 situation, right?

21 Yeah, that's it. Here, you go.

22 (Laughter.)

23 MR. BAILEY: If you've got it in, you've got four  
24 more minutes.

25 All right. Thank you very much, Laura. Colin

1 Bailey here with the Environmental Justice Coalition for  
2 Water, EJCW as we're know. For those unfamiliar with our  
3 work, we're a statewide organization that supports a  
4 grassroots movement for water justice, which is our  
5 shorthand way of saying the intersection of environmental  
6 justice and water.

7 The Coalition ranges through every corner of  
8 California. And our activities, as you've heard a little  
9 bit about them, include a wildly wide range of activities.  
10 Everything from community based participatory research,  
11 which I'll mention a little bit later to litigation, legal  
12 advocacy, lobbying, administrative, advocacy in front of  
13 whole handful of mostly state, but also regional --  
14 regional administrative agencies, community organizing,  
15 capacity building, technical assistance, regional  
16 planning.

17 In recent years, we have grown the range of  
18 activities in response to a whole host of new threats  
19 wrought by climate change and the water-related impacts  
20 there from.

21 So with that as background, the -- I came to  
22 biomonitoring by way of an interview. When was that?  
23 Like a year, year and a half ago. Sat down Ian Walker,  
24 who I understand now is sadly no longer with CDPH.

25 MS. ROSSI: It was about six months ago.

1 (Laughter.)

2 MR. BAILEY: Oh, six months ago. Man, I've been  
3 working hard.

4 (Laughter.)

5 MR. BAILEY: So the -- and I had lots of  
6 questions for those folks, so -- and they were really  
7 responsive. And I really appreciate that. In thinking  
8 about on my own experience of -- and what I've heard this  
9 morning, all of which has been a learning process for me,  
10 not being someone from kind of the biohealth sciences, but  
11 rather as an attorney, the -- we've got to grapple, I  
12 think a lot, with the limitations of what it is that  
13 you're doing.

14 And by limitations, I've heard technical  
15 limitations, methodological limitations, financial  
16 limitations, and in terms of scope. And our question  
17 today is really about how to amplify the impact and reach  
18 through partnership, through some real strategic thinking  
19 about how we utilize those -- the possibilities within the  
20 limits.

21 The -- to reflect a little bit on what I've heard  
22 also in light of kind of environmental justice best  
23 practices, a few things jumped out.

24 One is I heard in the morning presentations is  
25 race consciousness, which as an environmental justice

1 organization, everything that we do is race conscious. As  
2 I'm sure this community is well -- this group is really  
3 well aware, race plays a determinative factor in so much  
4 of not only health, but outcomes for opportunity across  
5 the board.

6           And in our work, we try to be very clear, because  
7 that also has its roots in a not very distant history of  
8 formal racial apartheid in housing, in schooling, in  
9 access to credit. And it has its reverberations to this  
10 day, we could make the link should -- if we had the time  
11 to things like AB 398, and its current impacts, et cetera,  
12 et cetera.

13           One thing that also came up, which is kind of a  
14 two-pronged piece is the cumulative impacts. We've heard  
15 a little bit from you all about some of the limitations of  
16 your methodology for addressing cumulative impacts, but  
17 I'm hopeful that we can explore more about what that would  
18 look like, perhaps with some real targeted inter -- I'll  
19 say interventions, but I'm going to use the word later --  
20 with some real targeted assessments.

21           The other element of that, which is a  
22 closely-related cousin, is kind of the synergistic health  
23 impacts of multiple constituents. And I'll talk a little  
24 bit about some of the work we're doing to try to get at  
25 that. And I may not have a lot of answers, but I'll have

1 some good questions.

2           The third kind of -- the pinnacle environmental  
3 justice policy making would be embracing at the national  
4 level, at the State level, at every level the  
5 precautionary principle. And this may be an arc of change  
6 that, you know, I don't want to give too much ground, but  
7 it could be a long time in the making. We are under no  
8 delusion that the chemical industry lobbyists in  
9 Sacramento, in Washington, and every other capitol and  
10 every other place that matters, are dumping lots of money  
11 into the political process to turn it to their benefit,  
12 and heaping the externalities of the means of production  
13 on communities that are disproportionately impacted,  
14 mostly low-income communities of color, who are less well  
15 equipped to deal with the consequences of those ill health  
16 effects.

17           I'm reminded in making that statement of one of  
18 the often repeated phrases from a City Council member in  
19 Maywood, who I'm assume folks know down in South L.A. is  
20 surrounded on three sides by the City of Vernon, the City  
21 Seal of which I think reads something like strictly  
22 industrial since 1912.

23           (Laughter.)

24           MR. BAILEY: And it is an environmental  
25 abomination. The City of Maywood is tiny. It's kind of

1 like Gaza. It's like basically a square mile with 30,000  
2 people almost -- I think it's something like 85 percent  
3 monolingual Spanish speaking, many undocumented, and very  
4 low income. And that community just gets dumped upon.  
5 The quote -- thanks I'm -- all right. It's the attorney  
6 in me.

7           The quote is he says, you know, we're cleaning  
8 the environment with our bodies. And it struck me that  
9 you all, through your biomonitoring process, probably have  
10 the deepest insights of most people into that very  
11 statement what that actually means when you're looking at  
12 the blood and urine samples and you're seeing what's in  
13 there. In fact, those are being removed by the very  
14 people on whose behalf we work through their biological  
15 system.

16           The -- a piece that came up that really caught  
17 fire, and this is all part of my learning process. I'm  
18 kind of just talking out loud as I'm learning here. But  
19 the interventional study really I think is important, and  
20 because it's in those -- it's in the intervention study  
21 that you can test the if-then proposition.

22           And from a policy perspective, which is one of  
23 our questions asked today, I think that's really a key  
24 methodology to embrace.

25           Just take for one example, and this is actually

1 working in the inverse of what I was going to talk about.  
2 But just the other day -- and actually, Dr. Zeise maybe  
3 able to help remember -- remind me of the particulars,  
4 though it's not your Department, the California Department  
5 of Pesticide Regulation after years of work by Pesticide  
6 Action Network and Californians for Pesticide Reform, and  
7 many others, finally instituted kind of a limited ban on  
8 the use of pesticides and herbicides during certain hours,  
9 6:00 a.m. and after, and near schools.

10           Hugely important, great step forward. It's got  
11 some pretty serious loopholes. What if somebody's  
12 spraying the stuff at 6:58 -- or sorry at 5:58 in the  
13 morning? You know what are the impacts there. What if  
14 it's Sunday evening. You know, there are some things that  
15 are questionable from a hypothetical perspective. But  
16 let's get to the empirical side of things, if we can  
17 actually test what the blood and urine results are from a  
18 policy like that, in the appropriate time frame, I think  
19 that's a really important indicator of whether the policy  
20 is having its intended effect. And that's just one  
21 example.

22           The more generative side would be also can we  
23 examine -- can we examine blood and urine in a way that  
24 gives rise to new policies that simply are absent?

25           And in there, we have a whole bunch of

1 potentially triggering effects. One of them would be, and  
2 I think it was mentioned here, you know, the game of  
3 Whac-a-Mole with the chemistry -- chemical industries, if  
4 we can't embrace the precautionary principle - and we will  
5 get there. We'll have to - then can we each time a new  
6 chemical comes out follow the, you know, commodity chain.  
7 Figure out where it's going to be, what the likely  
8 exposure paths are, and examine the heck out of it. And  
9 if it's not good, let's get it off the shelves. Let's get  
10 it out of people's body.

11           There would be a variety of other impacts, I  
12 think, that would be worth studying, because that needs to  
13 translate right back to this -- to the -- to the policy  
14 frame.

15           There's also, and this might be a little bit much  
16 for you all, but the enforcement side, I think is really  
17 important. And I don't mean just the regulations, but I  
18 actually mean the empirical back-up for the civil  
19 administrative liability action from the Attorney  
20 General's office, or the private right of action from the  
21 law firm/public interest group that want's to bring the  
22 claim.

23           And that's where your data definitely need to be  
24 made public, but also I think should be driven by, as  
25 Laura and my colleagues -- other colleagues said, by

1 community's active campaigns.

2           What do we know is most impacting communities  
3 now? And you've heard a variety of different examples. I  
4 want to quickly rattle of, because I've got less than a  
5 minute left. In terms of our second question, which is  
6 really about, you know, what are the highest priorities?  
7 Working in water, lead has been very much in the news  
8 lately for those who have been watching. It's showing up  
9 in the aging infrastructure, especially in the schools  
10 with the most vulnerable populations. I think  
11 biomonitoring would do well to continue the work. I've  
12 seen you doing a lot of work in that area already, but  
13 continuing to do the work following the headlines, and  
14 continue with the longitudinal studies.

15           Climate change, the -- and the global  
16 agricultural industry are colluding to warm up waters,  
17 and -- our drinking water and add ever more nutrients to  
18 them. And the toxic algae are popping up absolutely  
19 everywhere. We're -- I think this East Bay MUD territory  
20 here, yeah. So it's been in reservoirs. It's very costly  
21 to clean up, but it also can be quite bad for your health.

22           Working with some colleagues, plastics are, at  
23 this point, breaking down and pretty much dang near  
24 everywhere, including in our bodies, as I understand it.  
25 I'd really love to know some more about that.

1 I've got the heck freaked out of me by a  
2 colleague who studies silver nanoparticles, which is now  
3 showing up both to seed rain in the Sierras when we're in  
4 our inevitable drought, but also in people's underwear,  
5 because it has antibacterial properties, and you can wear  
6 it without washing your clothes. That's great for the  
7 drought, but not great for potentially for your biological  
8 health.

9 Among the most pervasive water contaminants is  
10 nitrate. And I saw you had some studies on those. Keep  
11 up with that, because we're going to make some big pushes  
12 on that soon. It turned out that University of Nebraska  
13 studied where naturally occurring uranium and nitrate  
14 co-occur. The nitrate and the uranium -- the nitrate  
15 actually changes the uranium, such that it becomes more  
16 water soluble and bioavailable.

17 I've been pushing with the Central Valley Board,  
18 the water board, to take a look at this. And maybe you  
19 all can help by examining from the biological side what  
20 we're actually seeing there in the Central Valley.

21 Everybody has forgotten about the Fukushima  
22 plant. But as I understand it, radiation is washing up on  
23 shores every day, finding its way into the biosphere.

24 There was one other thing I was going to hit you  
25 with. What the heck was it?

1           That might be it, but I was going to talk -- I  
2 was going to have you talk about IVAN when we get the  
3 chance. We'll talk about that in Q&A.

4           With that, let me pause and maybe in Q&A, I can  
5 tell you about some of the other academic studies that  
6 we've been involved in.

7           CHAIRPERSON SCHWARZMAN: Thank you so much. And  
8 it's -- I at least really appreciate the list of specific  
9 suggestions that gives I think the whole program a little  
10 bit more to respond directly to, because I think there's a  
11 lot of -- there's a lot of agreement probably on  
12 priorities and values. And it's harder to -- anyway, the  
13 specifics suggestion are helpful.

14           We have a few minutes for questions for our last  
15 two discussants, and then to transition back into the  
16 general conversation.

17           And if there aren't questions, we'll just go into  
18 discussion.

19           One ear.

20           Alex Nguyen.

21           MR. NGUYEN: Hello. Hi. My name is Alexander  
22 Nguyen. I'm the community development manager APA Family  
23 Support Services. And when I first heard about  
24 biomonitoring two years ago, I was at APA Family Support  
25 Services and I had no idea what it was. And I started

1 learning more about it. And as we were introducing the  
2 project to the community, I can tell you first hand  
3 directly that the community was very interested in, and we  
4 found a lot of benefits having this project. And working  
5 in collaboration with the California Department of Public  
6 Health, I think Dr. Wu, and Duyen, and the rest of the  
7 biomonitoring team really took into consideration the  
8 community that they were going to be studying and working  
9 with from the language, down to the dialect, through every  
10 single step of the process, our participants were  
11 completely informed and had complete access to any of the  
12 staff that were involved in the ACE Project.

13           And I just want to add again that the community  
14 found this as a move from, I think -- if I can say the --  
15 from the government, our State agency as something that  
16 they were finally being represented in something  
17 substantial to their health.

18           And I think I want to go back to the other point  
19 is that we've completed the study, and now these  
20 participants have their results. And as you know, the  
21 results show elevated levels beyond the national average.  
22 And it is a point of concern. And I think where we see a  
23 disconnect between the trust of the community working with  
24 maybe the State, is that just as the State may want some  
25 of the community members to be scientists, and contribute

1 to studying their communities, I think we have a lot of  
2 people who are in particular situations who might be in  
3 the low-income financial situation or they may have just  
4 arrived to the states and not understand how the  
5 operations within society works.

6           So it is quite hard for them to kind of be the  
7 scientist within the community, but I think also what they  
8 would expect is maybe for some of us here, who have the  
9 knowledge, to be advocates for them as well. But I  
10 understand that there are limitations to how far that we  
11 could reach. But I think just bringing this point up, and  
12 just the fact that you guys are discussing what type of  
13 action plans can be taken for these communities, I think  
14 is a great step. But biomonitoring I think has definitely  
15 been a benefit. And our community is more aware -- some  
16 of them might not even heard of what chemicals were  
17 before, now they have some sort of understanding that  
18 there are these things that are quite invisible, but  
19 they're very dangerous and very harmful.

20           So I just thank you for that.

21           CHAIRPERSON SCHWARZMAN: I have a thought for  
22 discussion, but I don't want to hog the mic if someone  
23 else has -- something else they want to start.

24           You, Scott.

25           PANEL MEMBER BARTLETT: I actually just had a

1 pretty quick comment.

2 MS. HOOVER: Mic.

3 PANEL MEMBER BARTELL: I'm never close enough.

4 Is it on?

5 I actually wanted to go back to a couple comments  
6 that were raised in the first half of this discussion this  
7 afternoon on compensating participants in these studies.  
8 And it's something we have actually talked about at some  
9 past meetings, maybe not recently. And I think it't  
10 always a challenge for Biomonitoring California to do  
11 that, given the tight budget.

12 But I just wanted to share briefly that I -- you  
13 know, my experience in community based studies in  
14 Anniston, Alabama and Parkersburg, West Virginia, both  
15 cases we were fortunate to have the funding to pay  
16 participants. And I felt that actually is very useful and  
17 important from a variety of perspectives, first of all,  
18 out of just fairness, I think, to participants, which I  
19 think underlies some of the comments you were making  
20 earlier. This is often a substantial amount of your time.

21 And even if you're not able to pay a lot for  
22 that, having some compensation, you know, sort of  
23 recognizes their contribution to the research. Of course,  
24 the staff who are collecting these samples, analyzing  
25 these samples are being paid.

1           So I'm a big advocate. I just wanted to add my  
2 voice kind of from the researcher perspective to say I  
3 think it is important to try to find even some small  
4 amount of compensation to help, you know, support people  
5 to spend their time as participants.

6           But I also want to add a voice as a statistician,  
7 arguing that actually my experience with that has been  
8 that even when it's a small amount. I think we paid  
9 something like \$30 or \$40 per participant for about an  
10 hour of time doing a questionnaire and a blood sample in  
11 Anniston, you know, we had tremendous participation rates,  
12 even though it wasn't a lot money.

13           And as all know as scientists, right, we always  
14 worry when we have low participation rates about whether  
15 we have selection bias.

16           So I think it's well worth kind of considering  
17 each time, you know, the Program embarks on one of these  
18 studies, to what extent it might be able to compensate  
19 participants, because both from as a researcher's  
20 perspective, the validity of the data, I believe, can be  
21 improved by that, and second just out of fairness to the  
22 communities who are participating.

23           MS. HOOVER: This is -- can you hear me?

24           (Yeses.)

25           MS. HOOVER: Okay. Scott seemed to be directing

1 that towards me --

2 (Laughter.)

3 MS. HOOVER: -- so I'm going to respond.

4 You know, I think there's a little bit of a  
5 confusion. This is not a budget issue. We have certain  
6 restrictions about how we can use State funds. We are  
7 extremely aware of incentives. In fact, on the diesel  
8 study, we've been seeking outside funds to fund  
9 incentives. Asa was able to identify two pots of money.

10 We are not stopping. We're continuing. I'm  
11 doing more research and reaching out to other partners.  
12 So it's definitely not a question of we don't think it's  
13 worth funding incentives. We absolutely want to fund as  
14 substantive of incentives as we possibly can. So that's  
15 the ethic across the Program. I can speak for everyone on  
16 that.

17 I also wanted to add a couple things about the  
18 diesel study. So part of what you're seeing with the  
19 diesel study is we had our wonderful EJ advocates who  
20 managed to get us a million dollars, that was one-time  
21 funding, that had to be spent within one fiscal year.

22 So, you know, there's -- that's a great amazing  
23 thing, and then there's also challenges about what we can  
24 do. So we were fortunate in having this whole history  
25 with the SGP to know that diesel was a priority.

1 Diesel is a very big priority with the SGP, with  
2 communities around here. So that's why we were able to  
3 jump on that study. Now, we are just getting a -- so we  
4 were able to design, we were able to find our PI, we were  
5 able to transfer the money. We were able to do this all  
6 very quickly, because of this history of, you know, years  
7 and years of meetings, and examining what is really  
8 important to study, what can we study, what has a  
9 biomarker.

10 So that -- just to give you a little context.  
11 You know, it's not like we're walking in and just deciding  
12 this is an important thing to study. We have a lot of  
13 input that supports that, and there's a lot of interest  
14 actually across the State, and in communities about  
15 studying diesel.

16 And then the last thing I'll say is that now  
17 we're about to be poised with our final approval. We're  
18 also going to be trying to have some formal service orders  
19 with community organizations to help us with recruitment,  
20 and actually, you know, a payment to community  
21 organizations to participate.

22 So we're very aware, and very supportive of  
23 involving the community. I think you heard that you know  
24 with the ACE study, that was a very -- a lot of  
25 involvement from the community in that study, a lot of

1 interest in that. Also, there was a long history of  
2 working with DPH, and that's why that long history led to  
3 the ACE study. But it was the long history that -- with  
4 the community that allowed that study to occur.

5 So definitely a strong ethic of wanting to  
6 involve the community, and also compensate the community  
7 wherever we can. I just wanted to explain some of the  
8 context for that.

9 PANEL MEMBER BARTELL: Sorry, because I think you  
10 have explained a little bit of that to me before  
11 throughout. So thank you.

12 MS. KAUFFMAN: Just a little bit. Duyen Kauffman  
13 from OEHHA. In ACE, we also specifically had scoping  
14 interviews just to sort of, you know, talk to people  
15 about, you know, barriers to giving samples. We asked how  
16 much they thought would be fair to be compensated, or, you  
17 know, a gift -- an incentive to participate. So we -- it  
18 was quite for us. It was \$100. And, you know, we had  
19 cooperative agreement funding that we could pull from.  
20 And, you know, some people wanted it higher. And we kind  
21 of like settled on \$100. It seemed -- you know, it seemed  
22 fair. People seemed fairly happy with that, but we -- you  
23 know, we can't use State funding for that, so it's -- it's  
24 a different picture now.

25 PANEL MEMBER BARTELL: Can I ask --

1 MS. HOOVER: Mic.

2 PANEL MEMBER BARTELL: So I'm just wondering, you  
3 know, in terms of trying to make that process easier for  
4 you all, is there -- you know, what would have to change?  
5 Would it -- is it a law pertaining to like all State  
6 agencies, or is this something specific to CDPH, is this  
7 something that the Panel could even advocate for? Because  
8 I -- you know, I think it sounds like this has been a  
9 continued barrier.

10 MS. HOOVER: Yeah, absolutely.

11 PANEL MEMBER BARTELL: I mean, and we have a lot  
12 of other barriers you need to overcome to do these  
13 programs too. But if this is one that, you know, would --  
14 that could be changed through some advocacy to allow  
15 monies -- state monies to be spent for that purpose.

16 DR. WU: Yeah, I do believe it is a law that  
17 applies to all State agencies. And it is the same kind of  
18 law that prohibits us from spending money on swag, you  
19 know, any kind of gifts for participants. So recruiting  
20 and giving out little magnets is also not something we can  
21 do, and spending money on food or -- so when we hold  
22 community events, I want to make it a welcoming and  
23 convenient venue for people to come participate in, we  
24 can't do things like feed them.

25 In our partnership with APA, luckily APA was able

1 to do that, and they did provide child care, and food, and  
2 made it -- I mean, this was just -- this was great place  
3 to come, and learn, and hang out with community. And  
4 that's how we were able to get around that for ACE.

5 But it is a barrier for a lot of our  
6 participation. And I think it's something that keeps us  
7 feeling like not part of the community. I mean, it's --  
8 these are things that keep us from creating real  
9 relationships with people that we have all these State  
10 barriers.

11 PANEL MEMBER BARTELL: Thanks.

12 CHAIRPERSON SCHWARZMAN: Jenny had a question or  
13 a suggestion, a discussion point.

14 PANEL MEMBER QUINTANA: Actually, it's following  
15 up a little bit on the question that you posed that you  
16 were commenting on, Scott. And that is that I -- for one  
17 thing, I don't think we should call it incentives.  
18 That's -- to me, it's like a -- it creates this kind of  
19 barrier. It's compensating someone for their time. You  
20 know, it's really compensation is what it is.

21 And I'd had many fights with our human subjects  
22 review committees, because they're very worried that if my  
23 -- our compensation is too high, we're kind of putting  
24 pressure on people to join. But I'm saying, you know,  
25 look, it works out to more than 10 hours of their time,

1 and you say \$50 is too much. You're saying they don't  
2 even get minimum wage. You know, like, so I think that  
3 fairness is really an important part, but not just for  
4 participating, but like you said for providing support to  
5 community members.

6           And I just wanted to give a quick plug here for  
7 funding agencies to think about bringing in local  
8 community college students, high school students, and  
9 like, for example, San Diego State has a campus at  
10 Imperial Valley, but I think we should also really try to  
11 bring in student support. People can see the value of  
12 students in their own community getting money to go to  
13 school, and then participating in these kind of studies,  
14 as well as community groups themselves I think is  
15 providing a bridge.

16           But I do think that -- I don't know. I'm -- I'm  
17 getting sick of being on grants where all these  
18 researchers are getting this salary support, and then the  
19 amount going to the community is small, and it's just not  
20 right. You know, that's not how the money should be  
21 spent.

22           MS. BEJARANO: You know, I can actually relate to  
23 that --

24           MS. HOOVER: Esther, the mic.

25           MS. BEJARANO: I can actually relate to that and

1 just quickly. I don't want to go off point, but our  
2 organization has been -- had been in the same location for  
3 almost 20 years, and our organization burned down. Our  
4 director, I think was in Sacramento, and we were -- it was  
5 3:00 o'clock in the morning, and it was down to nothing.

6           And struggling just to keep an organization  
7 afloat is just very challenging. And just talking about,  
8 you know, the funding these and the incentive -- or  
9 non-incentive, but support, there was some -- somebody  
10 called me the next day. We're trying to meet. We're  
11 trying to gather the community health workers and meet.  
12 And then I get this phone call, she's like, hey, Esther --  
13 I think it was Department of Pesticide Regulation -- we're  
14 going to come down. And I've been emailing you, and  
15 you -- you know, we want to hold the training at your  
16 area. Can you get people together for me, and can you  
17 host the food?

18           And I'm -- we're trying to survive. We just lost  
19 our building, and, you know, she's telling me that, you  
20 know, government is coming down, and I've got to pay for  
21 the food, right?

22           It was just -- it was really not a good day for  
23 me. And I think it just really hit me that day -- one is  
24 what are you talking about you know?

25           But that happens, and it's very unfortunate.

1 MS. HOOVER: Let me just pipe in. Meg, just real  
2 quick, two things. Actually, interestingly, Jenny, Asa,  
3 on our project, he specifically said we should not call it  
4 compensation, because it's so small. So we recognize that  
5 it's insufficient. We do not consider this compensation,  
6 so that's why he wanted to call it an incentive, because  
7 it's a small amount. We -- again, we completely support  
8 the concept of adequate compensation, which we are not  
9 able to provide.

10 But I will say about the food, you'll notice -  
11 and we're coming up on our break - all the nice food  
12 that's laid out there Biomonitoring California staff paid  
13 for and provided for the audience. So just so you know,  
14 we are aware, and we just -- we did that, you know, to  
15 treat you. And it's a limitation of the state, but it's  
16 not a limitation of State staff. So just so you know.

17 (Laughter.)

18 MS. GRACIA-SANTIAGO: If I can just say something  
19 on the youth aspect real quick. As a previous youth  
20 organizer, our young folks are constantly like being asked  
21 to be at things. And so -- and this -- I know I sound  
22 like a broken record, but I'm just going to keep saying  
23 it, it's about being intentional about who you're bringing  
24 into the -- into the work, into the study, into whatever.

25 Our young people are like -- they've been told --

1 they've been asked -- they've been invited into  
2 conferences. And then when we go to the conference, and  
3 we speak truth to power, we say, hey, our air district  
4 isn't cooperating with us, and we've been -- you know, we  
5 have all this data already. We've been going to all these  
6 public hearings. I've told them about, you know, what --  
7 what that day was like when the refinery caught on fire.

8           And yet, our voices are still not -- they're  
9 heard, but they're -- they're not taken seriously. So if  
10 you're going to invite young people into this process,  
11 which I think is a great idea definitely. There are a lot  
12 young people that are very interested in like research and  
13 STEM, and we definitely need that in our communities, but  
14 we need to be intentional about it needs to be a  
15 leadership opportunity. It needs to give some type --  
16 again, mutual. If it's not money, it has to be like some  
17 type of credit for school or something.

18           And there needs to be like a real like debrief  
19 process of checking in, and how are you -- what do you  
20 need from me? What do I need -- you know, it has to be a  
21 real growing experience. If it's not intentional and  
22 really thought out, then I feel like it's taking advantage  
23 of the young people that really are wanting to grow. And  
24 if they're not receiving those resources, then I would say  
25 don't -- just don't do it.

1           So just being very careful about how we bring  
2 young people into these spaces to not discourage them.  
3 We've gone to many public board -- many public hearings at  
4 our air district, where, you know, we've -- they're  
5 constantly -- all the board members are saying, oh, it's  
6 so great to have you. Thank you for missing school right  
7 now. It's so great that you're here, because we want to  
8 hear you.

9           But at the same time, we go into these spaces,  
10 and we -- one, there's not enough space, so we don't even  
11 get to sit in the main room. Two, you know, our time gets  
12 cut down to 30 seconds. Three, you know, there's no --  
13 there's not enough community partici -- there's not  
14 enough -- the agencies aren't trying to meet the community  
15 where they're at, right?

16           So again, the fact that we have to go to these  
17 meetings at Wednesday at 9:00 a.m. I'm kind of going off  
18 tangent. But what I'm saying is please be intentional  
19 when you're talking about bringing young people into these  
20 spaces.

21           CHAIRPERSON SCHWARZMAN: Nancy has been in the  
22 queue for a little while.

23           MS. BUERMAYER: Thanks. Nancy Buermeier with the  
24 Breast Cancer Prevention Partners. And I wanted to say  
25 thank you to the staff. I was actually going to lead with

1 that, that the staff had paid for the yummy munchies in  
2 the back. So thanks.

3 So there's sort of two things I wanted to touch  
4 on briefly. One is this notion of scientists as  
5 advocates. And I actually don't know what the regulations  
6 are for State staff to show up at the City Council meeting  
7 next to you, and say you should do this because the data  
8 says you should.

9 And I think that's a problem, not just with State  
10 funded staff, but academics in general tend to be a little  
11 queasy about that, not just around biomonitoring, but by  
12 around a lot of stuff. And I appreciate the academics on  
13 this Panel, because I think you guys are the exception to  
14 the rule.

15 And it's something that in the advocacy that we  
16 do around breast cancer prevention, we have to find  
17 scientists who will get up and actually say, these  
18 policies are good and the science shows that these are  
19 policies that should pass.

20 So I think -- and again, I don't know exactly. I  
21 know that State staff have a lot of restrictions on what  
22 you can and can't say and do, and to whom, and about what.  
23 So I think one of the things to think about is how do you  
24 do a team effort, where you have a community group that  
25 does advocacy for a living or at least is a piece of what

1 you do.

2           An academic who has more freedom to step up and  
3 say, you know -- to say that the advocacy piece is  
4 important, and then the State agency that can do a lot of  
5 the technical work, and the design of the project. And  
6 maybe the agreement with the academic goes back to the  
7 MOUs you were talking about, Colin, and saying okay when  
8 we get this data and it shows that action needs to be  
9 taken, you're going to show up with us and say that,  
10 right?

11           Because I think that's an important  
12 responsibility that people have when you go in and work  
13 with a community to do research.

14           So I wanted to say that the funding piece, you  
15 know, as somebody again who worked to try to get this  
16 money for this project, I almost -- you know, there's a  
17 part of me that's like really proud that we got a million  
18 dollars. And then there's the part of me that worries  
19 it's going to sort of open a conversation that's going to  
20 come to a screeching halt because there isn't the  
21 resources to continue to do it. And it speaks to the sort  
22 of consistency of showing up with communities that you've  
23 invited into a process, or asked for input from, you know.

24           And then the flip side is by engaging the  
25 communities that have been part of the organizations

1 across the State, they can be very powerful allies to go  
2 to the State legislature and say, this is important and we  
3 need to keep funding this.

4           Like I know, Comite has very good relationships  
5 Eduardo Garcia, because I know he was involved in some of  
6 those air monitoring pieces. And then that speaks to like  
7 what are the actual survival priorities for the  
8 communities, right? Like maybe funding for biomonitoring  
9 is a really key issue for a community. And maybe it's  
10 getting, you know, water to not have lead in it. You  
11 know, there's a lot of different pressures on just keeping  
12 an organization afloat, and then, you know, if you had AB  
13 32 money is that what you'd use it for or would you use it  
14 for something else?

15           So I don't -- I don't have a real good answer to  
16 any of that. I think it's a little bit circular, and it's  
17 one that is incredibly frustrating to me, because I listen  
18 to all of these discussions and I have talked to the  
19 Biomonitoring California staff who are fabulous for years  
20 about the struggles with money and what they've been able  
21 to do with so little, and trying to get money out of the  
22 State and trying to get money out of the federal  
23 government to keep this Program afloat.

24           And I just -- I so want there to be some sort of  
25 grounding route of sustainable funding that allows you

1 guys to do your job and not have to spend so much time  
2 just figuring out how to get the next panel read.

3           So I want to say thank you for the efforts that  
4 you take -- that you do around that. And, you know, I'm  
5 not quite sure what the answer is, but I know it's a huge  
6 challenge that we face on so many different issues  
7 including biomonitoring.

8           CHAIRPERSON SCHWARZMAN: Thank you for that.  
9 It's almost time for us to wrap-up and have a little  
10 break, not for the end of day, just for a break, and eat  
11 these snacks that everybody has been talking about.

12           (Laughter.)

13           CHAIRPERSON SCHWARZMAN: But Nancy's comment I  
14 want -- there was a little piece that I wanted to amplify  
15 about what Nancy said, because I think there's some really  
16 creative ways to think about how, within the limitations  
17 that State staff have about where they can show up and  
18 what they can say, ways to strengthen the connections  
19 between community organizations and say biomonitoring,  
20 because that's what we're talking about today, so that the  
21 information is being communicated. And then perhaps  
22 there's a third partner, like Nancy is saying, about an  
23 academic institution or researcher. And there's maybe  
24 things that can happen if we think a little bit outside  
25 of, you know, the State staff has to show up alongside the

1 community group, which, in some ways, would be powerful  
2 and wonderful, but as -- in some settings is just not  
3 possible for the staff.

4           But are there ways that the staff and the  
5 community group could talk together about, well, what data  
6 are there out there that would support your cause? And  
7 who could come speak on those? Is there the academic  
8 researcher who did that study who you could then pressure  
9 whatever hearing or board, local or State, it is to say  
10 you need to have a presentation by this researcher so that  
11 you're aware of these data, so that you're not having to  
12 stand up and be the only ones advocating and saying  
13 there's information here you guys need to listen to and  
14 care about our community, but you know enough about the  
15 presence of the data to compel boards, agencies, and city  
16 councils, whatever the venue is that you're working in, to  
17 say you need to hear from this researcher.

18           And then it's -- it doesn't have to be in your  
19 word. It can be in the researcher's words and you've kind  
20 of gotten them in to support you, but in a slightly less  
21 direct way than, you know, standing alongside you, which  
22 they may not be able to do always, even if, in essence,  
23 they want to be able to, but can't support you in that way  
24 to think about how they realistic can.

25           And if some of those ties are strengthened,

1 perhaps some of that sort of informing can happen behind  
2 the scenes, such that you are bringing in allies, each in  
3 their own capacity to strengthen your case for action.

4           So I sort of -- I appreciate that kind of  
5 creative thinking about how each player in their -- still  
6 working within the constraints of their own role, can  
7 nevertheless, support the cause for change.

8           So on that note, let's break and have snacks and  
9 we will reconvene at 3:55, a 15-minute break.

10           (Off record: 3:38 p.m.)

11           (Thereupon a recess was taken.)

12           (On record: 4:01 p.m.)

13           CHAIRPERSON SCHWARZMAN: Okay. I think we're  
14 going to start again.

15           Thank you all for your conversation and  
16 discussion and thoughtful contributions to the day as a  
17 whole. And we have another about half hour, yeah, to  
18 continue the conversation.

19           I wanted to seed the discussion a little bit.  
20 I've been sitting on my question. And so I'll use it to  
21 seed the next section of discussion. And it's a little  
22 bit taking off on some of the issues that Colin was  
23 raising about intervention studies. You know, it's a  
24 topic that I think I mentioned we've talked about as a  
25 Panel for some time, and by Biomonitoring California has

1 done some of these.

2           But it occurs to me it's one of -- you know, as  
3 I'm listening to our guest discussants, there's -- can be  
4 a little bit of a mismatch between what we're hearing the  
5 community needs and what the scope of Biomonitoring  
6 California is. And so it's one of the ways that I think  
7 we can get at a potential overlap, because the community  
8 needs many things, and Biomonitoring California has a  
9 relatively narrow scope of what it can do.

10           And, you know, I know the staff are excellent  
11 listeners and really responsive to what communities want  
12 and need and what feels like it's going to be beneficial.  
13 And then we also have to work within the scope of what the  
14 program can do, but this is one of the areas where there  
15 may be overlap. And I thought it would -- I would like to  
16 hear some input about places where you think some of these  
17 connections could be made.

18           So, for example, Colin mentioned the  
19 precautionary principle. And there's one city I know that  
20 is actually implementing the precautionary principle,  
21 which is San Francisco, Department of the Environment.  
22 And they had a particularly interesting project, in which  
23 they undertook decreasing glyphosate use, Roundup, in the  
24 city. And they did it not through regulation, but by  
25 employing the precautionary principle and asking the

1 people who use Roundup, okay how is it used, so the city  
2 gardeners, and got a rundown of all the ways that it's  
3 used, and then what the alternatives are.

4           And they came up with a long list of alternatives  
5 and found through one or another, not just chemical  
6 alternatives, but like my favorite flamethrower anyway.

7           (Laughter.)

8           CHAIRPERSON SCHWARZMAN: Lots of ways to treat --  
9 other than using a chemical herbicide. And through that,  
10 I believe reduced their use of herbicide about 90 percent,  
11 93 percent maybe, and limited it to some really essential  
12 uses like SFO runways, where they can't shut down SFO and  
13 turn goats out to graze on the runways, which was one of  
14 the other alternatives.

15           (Laughter.)

16           CHAIRPERSON SCHWARZMAN: So they -- they really  
17 reduced the use of it. And I would be curious whether  
18 that affected San Franciscans levels of glyphosate  
19 metabolites. So maybe that's not a priority, but I only  
20 raise that example, because there are -- in addition to  
21 regulatory and sort of policy-informing studies that can  
22 be done, there are a lot of non-regulatory actions that  
23 are taken also.

24           Colin mentioned the regulatory one about  
25 pesticide application timing. But I think there's -- you

1 know, I know about similar -- similar to the glyphosate,  
2 you know, areas of working with safer wet cleaning instead  
3 of dry cleaning. There's efforts to do substitution in  
4 nail salons. And each of these is potentially  
5 opportunities for looking at does that intervention make a  
6 change in the worker's exposure or the surrounding  
7 communities' exposure.

8           And I think the more ideas that we have about  
9 what is happening within communities, either in regulatory  
10 or non-regulatory ways that provide opportunities for  
11 those kinds of studies, the better. And that's a link  
12 that could potentially be made between community groups  
13 and Biomonitoring California that could lead to some  
14 interesting study designs.

15           So I wanted to raise that as a potential  
16 discussion point. And maybe I should stop there. I have  
17 another thought, but stop there for the time being.

18           MR. BAILEY: Yeah, I think what you presented  
19 makes -- sounds a lot like what I was thinking would be  
20 very effective. And, you know, Nancy raise the point  
21 of -- I think it was who raised the lead in gas.

22           MS. BUERMEYER: That was Jenny.

23           MR. BAILEY: Oh, it was, Jenny. Sorry forgive  
24 me, Jenny.

25           The -- uh-oh. I hope I didn't lose my train of

1 thought. The -- So I'm making an assumption here that may  
2 or may not be right from a technical perspective, but from  
3 a policy one, it feels like I sure hope it's right.

4           And that is that biomonitoring can, by virtue of  
5 detecting things in blood and urine, predict some of the  
6 pre-cursors to some of the health outcomes that we want to  
7 avoid, but that might take place years, sometimes decades,  
8 into the future. And in that way, there's some more  
9 immediate indicator of a -- with some predictive value of  
10 the things we want to avoid down the road.

11           CHAIRPERSON SCHWARZMAN: That's definitely the  
12 idea with the caveat that most health effects have many  
13 causes. So very few --

14           MR. BAILEY: So isolating.

15           CHAIRPERSON SCHWARZMAN: -- other than like  
16 asbestos has a very direct correlation -- asbestos  
17 exposure has a direct correlation with one disease. And  
18 that disease isn't really caused by anything other than  
19 asbestos. There's very few health outcomes that you can  
20 say that for with chemical exposure.

21           So with the -- with the caveat that most health  
22 outcomes that we talk about with environmental exposures,  
23 also have a lot of other contributors. Aside from that  
24 point, I would say what you said is true.

25           MR. BAILEY: So then in terms of study design,

1 can -- could you, especially in anticipation of some  
2 change in policy that's supposed to change practice, do a  
3 before-and-after study. So you --

4 CHAIRPERSON SCHWARZMAN: Yes.

5 MR. BAILEY: So you have some point in time  
6 Comparison, or we talked about earlier, you know,  
7 tradeoffs between broadening the substantive scope, as  
8 well as the geographic. You could look at a place where  
9 the policy is in place, and it's having its presumed  
10 impact on practice versus a place where it's not in place  
11 and the practice remains at the baseline.

12 CHAIRPERSON SCHWARZMAN: Yeah, either. Both are  
13 possible. And there's examples of these studies that are  
14 done, both -- I mean, some from like California  
15 Biomonitoring -- and I should stop answering questions,  
16 let some other people too who can give more specific  
17 examples. But, you know, California Biomonitoring has  
18 some like we mentioned the flame retardant study with  
19 furniture replacement is one. And then nonprofits in the  
20 room have contributed studies like dietary intervention  
21 with non-bis -- bisphenol A containing food, so where they  
22 measure urine metabolites, and then have an intervention  
23 that lasts like a week with complete diet replacement, and  
24 subsequent urinary measurements.

25 So it depends on the substance that you're

1 measuring, whether it's something that's metabolized very  
2 quickly and eliminated --

3 MR. BAILEY: Right.

4 CHAIRPERSON SCHWARZMAN: -- how big the time lag  
5 has to be to see changes, et cetera. So it's  
6 substance-dependent, but all of those comparisons are  
7 theoretically possible.

8 MR. BAILEY: Yeah. From my line of thinking I  
9 think that that's a -- that's a -- that's a realm of  
10 activity that biomonitoring could undertake that I think  
11 would be really fruitful. It would require folks, not me,  
12 with the scientific background to sit down and think about  
13 each of those kind of the latency periods for how detect  
14 what the policy would be, what the -- like you'd have to  
15 come with a workplan for each and every one. But it  
16 strikes me as potentially quite powerful.

17 Other thoughts?

18 CHAIRPERSON SCHWARZMAN: So I guess one of the  
19 things I was asking for input on, or at least just to  
20 say -- not input at this moment necessarily - although, if  
21 you have it, that's great - but as time moves forward, if  
22 you know about a change or an intervention, or something  
23 that you've advocated for in your community and it's now  
24 being done or is going to be done starting a year from  
25 then, that would be an interesting time to talk to

1 Biomonitoring California.

2 MS. BUERMEYER: Hi. Nancy Buermeyer, Breast  
3 Cancer Prevention Partners.

4 Along that line, I have heard --I don't know a  
5 lot of detail - that the Port of Los Angeles just put in a  
6 plan to reduce exposures to various transportation kinds  
7 of pollutants like diesel trucks, and other things. So  
8 I'm not sure what the timeline of that is. But even if  
9 you could get the samples now, even if you didn't have the  
10 money to actually analyze it until 2025, when it's  
11 supposed to -- what's that?

12 There you go. There you go. February, we'll be  
13 in L.A.

14 Just to follow-up on what Meg was talking about,  
15 we actually worked with another non-profit to do the  
16 dietary study. Took five families biomonitoring them for  
17 BPA, fed them food that had not contacted plastic for  
18 three days, and found the 60 percent drop in the level of  
19 BPA in those folks.

20 There's a similar study called the HERMOSA study,  
21 which was done in the Salinas Valley with Latina  
22 teenagers, who were themselves the researchers. And they  
23 got their community to change the personal care products  
24 that they used to eliminate certain endocrine disrupting  
25 chemicals and found significant drops in parabens, and

1 phthalates, and some other things.

2           So they're powerful, and then you have to tie  
3 them to the health stuff, the health impacts, largely  
4 based on laboratory data, because, you know, for breast  
5 cancer it can take 50 years for it to show up, and it  
6 turns out we get exposed to a whole lot of stuff between  
7 now and 50 years from now. So you can't isolate it very  
8 well without that scientific -- that laboratory data.

9           So there's lots of different opportunities like  
10 that. And again, I -- you know, I would -- as Meg said,  
11 if you know if some change in a policy that you think can  
12 have a direct impact, it builds that -- that database of  
13 see when you do something, it really does matter.

14           You know, one of the studies that the  
15 Biomonitoring Program did was to look at flame retardants  
16 in breast milk, a specific flame retardant that was banned  
17 like 10 years ago, and showed a significant drop of that  
18 flame retardant in breast milk. They're very powerful  
19 stories for advocates to tell, to advocate for other  
20 reductions and exposures.

21           CHAIRPERSON SCHWARZMAN: Along these lines, maybe  
22 I'll just mention a study that we're just starting, that  
23 we -- has been supported by the California Breast Cancer  
24 Research Program, and that we're planning to use  
25 Biomonitoring California data on it, and work with OEHHA

1 to look at whether we can determine whether Proposition 65  
2 has affected Californian's exposure to breast carcinogens  
3 and endocrine disrupting compounds.

4           And one of the things that we hoped to come out  
5 of the project, even if we -- you know, the data may not  
6 be there to fully answer some of those questions, but what  
7 we would like to do is be able to propose the kinds of  
8 studies that could determine that. If we can't tell, we  
9 at least want to be able to say here's how you could and  
10 here's how you could start to look at the effectiveness of  
11 these interventions to really make them feed back into  
12 actual change in people's health.

13           MR. BAILEY: We've talked about the -- sorry,  
14 Colin here -- the potential of biomonitoring to either  
15 come on the back end as proof that the intervention  
16 worked, or as the catalyst for the actual policy change,  
17 and I'm interested in both of those. It strikes me that  
18 what you just said, Dr. Schwarzman, is potentially driving  
19 the change that we want to see as well.

20           I've got to think of more examples of where I  
21 can -- we can make that work. I was going to say on Prop  
22 65, there are also some, you know, folks in the  
23 environmental community consider loopholes, that I can  
24 imagine us, you know, like whether it's with -- when the  
25 stuff goes to the dump, and it's not particularly

1 well-regulated there or when it's in water for that  
2 matter.

3           You know, a lot of the Prop 65 stuff people got  
4 it covered what it's at the, you know, little community  
5 business type place or the big factory, but when it's  
6 actually in the water, and is the subject of a discharge,  
7 it's a lot -- people aren't watching that as much.

8           PANEL MEMBER CRANOR: See does this work?

9           Okay.

10           Just a further comment on kind of the limitations  
11 of the Biomonitoring Program. You can imagine easily a  
12 case in which -- I mean, something Scott and I were  
13 talking about on the way here this morning, you measure  
14 lead levels in people's bloods and it's elevated. And the  
15 thinking that I'm aware of is that there's no safe level  
16 of blood concentrations.

17           But if you had clear elevated blood levels,  
18 biomonitoring can inform you of that. But then legal  
19 steps to do something about it is beyond, I think, the  
20 scope of what legal -- what biomonitoring can do, other  
21 than provide the data that you've got a problem here, and  
22 then you have to turn to whoever, I mean, private lawyers,  
23 the attorney general, whoever might be able to do  
24 something about those exposures.

25           MS. BEJARANO: Or going to the source, right?

1 Or going to the source?

2 PANEL MEMBER CRANOR: I'm sorry?

3 MS. BEJARANO: Or going to the source of that  
4 either toxic either chemical or something that is -- we  
5 find that it's affecting, as we saw in flame retardant.

6 PANEL MEMBER CRANOR: Well, chose -- because of  
7 our conversation, I chose lead deliberately, because you  
8 know when it's present in the blood, it's dangerous. It's  
9 pretty directly dangerous.

10 But there are a variety of other things that are  
11 ways up the toxicological pathway that are there perhaps,  
12 but they're not yet. So approximately dangerous as  
13 something like blood lead is, or bone lead is. So  
14 sometimes you have biomonitoring evidence that you know  
15 you've got a problem right now. You know, it's not 20  
16 years from now, but it's right now. But at that point, I  
17 don't think biomonitoring can do probably much, other than  
18 say there's a problem. And we -- you know, pass it off  
19 then to appropriate State agency, or if you live near a  
20 lead processing plant, or something you may go -- there  
21 may be the private law path to doing something about that.

22 CHAIRPERSON SCHWARZMAN: Well, I'd say there's  
23 one exception that, which is, you know, it's been used to  
24 show that when you clean up housing stock that has old  
25 deteriorating lead paint, the blood lead levels of the

1 kids who live there drop.

2 PANEL MEMBER CRANOR: Right.

3 CHAIRPERSON SCHWARZMAN: So, you know, there's  
4 significant things to do, I think, with those measurements  
5 other than just say this person is in trouble because the  
6 blood lead is high.

7 PANEL MEMBER CRANOR: Right. I guess, I don't  
8 know that - you may know the data. I don't - that I don't  
9 know how quickly the blood acts, what damage has been done  
10 because their blood levels were high for a while, and then  
11 they dropped. It's a good thing they dropped, but I don't  
12 know what happens in the interim.

13 MS. GRACIA-SANTIAGO: So I was talking to folks  
14 about like more specific, you know, guidance on how can --  
15 how can we work together?

16 So I was thinking right now as you were talking  
17 about how can biomonitoring step in when it comes to --  
18 I'm thinking about how our organizing efforts down in  
19 southeast -- in Vernon with the Exide facility -- you  
20 know, the -- they had been continuously been getting fines  
21 for many, many, many years. And then there was a lot of  
22 organizing around that, because again the community  
23 noticed how it was impacting their health.

24 So I'm thinking that there are two ways of  
25 intervention right there. You know, maybe some better

1 communication between regulatory agencies and some, like,  
2 research, like, biomonitoring. So this facility keeps  
3 getting fined, because they keep -- they keep polluting,  
4 and their system isn't up to date. So I wonder -- hmm, I  
5 wonder how that's impacting the community. So then, you  
6 know, working with folks that have been organizing there,  
7 that's one aspect.

8           And then the second is -- is -- I think that, you  
9 know, the evaluation that you all did in regards to  
10 working with different EJ organizations all over the  
11 state, I think that that's a great first step, right, in  
12 recognizing, okay, these are what some of the issues are  
13 in the communities. I don't know if it's been done before  
14 with biomonitoring, but from my perspective that's a great  
15 first step.

16           And so now it's a matter of following up, right?  
17 So making sure that the studies that you will be working  
18 on are very tightly linked to the folks that are working  
19 there and are organizing there.

20           And one like -- if you want to work with CBE,  
21 that's super cool too. Like, we -- our youth group would  
22 love to have you. And back in 2006, we did our own  
23 research project where we -- the Richmond household  
24 exposure study was done here in Richmond comparing  
25 particle -- like the indoor ambient in Richmond and

1 Bolinas. And obviously levels of toxicity were incredibly  
2 higher in Richmond than they were in Bolinas, which is  
3 over on that side of the bay -- I mean, yeah, the bay.

4 And so we took that information to the air  
5 district and we said, hey, this is why, you know, we need  
6 stricter regulations. And the air district told us, you  
7 know, yeah, we see that the toxicity is there, but there's  
8 no data that shows how it's impacting commune -- like,  
9 folks that live there.

10 So that's -- you know, that would be something  
11 that we can work on together. It would be, okay, so we  
12 already know that this issue is there. This is what  
13 they're asking us for. So now let's give them that, so  
14 then there is no roundabout to, you know, why do they need  
15 stricter process and giving the refineries permits.

16 And then -- and a couple of other things that our  
17 researcher just said, like make sure you mention the PAHs.  
18 You know, that's a combustion product from refineries.  
19 And so that's something that we haven't really been  
20 working on. And I know that it is something that  
21 Biomonitoring can work through -- with in their labs. So  
22 that would be another good step -- good place to step in  
23 here in Richmond.

24 Diesel, like I said, is -- it is a big issue, but  
25 diesel particulate matter from the refinery is something

1 that folks have been on -- like have been feel -- dealing  
2 with forever since they've lived here, and for  
3 generations.

4           And then also when it comes to the metals -- rare  
5 earth metals like vanadium, nickel, and chromium, those  
6 are things that we -- that I'm not sure if they're  
7 included, because it just says metals into -- in your --  
8 on website. But those are other things that we would like  
9 to know more research on in regards to how can -- because  
10 we know that that's what's impacting us from the  
11 refineries as well.

12           So how -- how can we include that into some type  
13 of policy with our air district. So that would be from an  
14 organizing perspective. And this is -- and, you know, if  
15 this is something that we were to do again, starting with  
16 the community and how -- how are we going to go about in  
17 doing this research.

18           PANEL MEMBER CRANOR: Right. Let me echo  
19 something that Megan said. I guess I agree on the lead  
20 point.

21           MS. HOOVER: Mic.

22           PANEL MEMBER CRANOR: Okay. Is it on?  
23 Okay.

24           When you have blood lead levels, that's very  
25 risky and may be already dangerous. When you have the

1 nitropyrene that we were talking about this morning, Jenny  
2 says they're quite mutagenic. Now, that's not good. You  
3 want to reduce those as quickly as possible.

4           How quickly they will trigger a carcinogen, I  
5 don't know. But that's more likely to be a long process.  
6 But I guess if they're mutagenic enough, maybe it's  
7 quicker, so -- but what the biomonitoring can do is say,  
8 you've got this bad actor in your bodies -- we have a lot  
9 of bad actors in our bodies and how -- what is the  
10 concentration, but we want to reduce them. And a lot can  
11 be done to the -- to perhaps to reduce them. So it might  
12 be local efforts, it might be legal efforts, whatever.

13           MR. BAILEY: Yeah, so there -- I mean, there's --  
14 there's kind of a whole theory of change here that's -- we  
15 have to identify the problem in the body, which is what  
16 biomonitoring can do to be the catalyst then and to  
17 understand through, you know, community -- direct  
18 community knowledge of their lived experience what is the  
19 likely exposure pathway?

20           PANEL MEMBER CRANOR: Yes.

21           MR. BAILEY: Given that, and since our  
22 conversation is about environmental justice, something in  
23 the environment is creating that problem. We identify  
24 what that is, and then we have to build community-based  
25 power, probably through other allegiances, including with

1 you all to make the argument that the presence of that  
2 stuff is going to cause bad things to happen, and we need  
3 to stop it.

4 PANEL MEMBER CRANOR: Yes.

5 MR. BAILEY: One thing that Nancy mentioned  
6 was -- is, you know, another prong of this, and is to the  
7 degree that the, kind of, epidemiological impacts are not  
8 well known of a constituent that might be in the blood or  
9 urine. We should also take care to try to tether  
10 biomonitoring in those instances to the next phase of the  
11 research, which biomonitoring won't do, but the -- you  
12 know, the toxicologists, the people -- the  
13 endocrinologists, the people who are studying, you know,  
14 what the fish models, and the mice models, and what  
15 happens when this is in your blood, and we can start to  
16 extrapolate --

17 PANEL MEMBER CRANOR: Well, that's one reason --

18 MR. BAILEY: -- what new bad thing is out there  
19 that we need to address.

20 PANEL MEMBER CRANOR: Right. That's one of the  
21 good things and very bad things about lead. A lot is  
22 known and they know about the different levels. And so  
23 you could figure out a whole panoply of things pretty  
24 quickly. And I don't know what happens when you reduce  
25 the blood lead levels. Surely that's a good thing for the

1 person involved. How much damage has been done in the  
2 meantime, I have no idea.

3 CHAIRPERSON SCHWARZMAN: I want to take a moment  
4 and just check that we don't have public comment via the  
5 web?

6 MS. DUNN: None.

7 CHAIRPERSON SCHWARZMAN: Nothing.

8 And I'm also supposed to just check in and make  
9 sure we've gotten all of the formal public comment in the  
10 room. We're getting close to the end of the discussion.

11 Okay. So that's the call for formal -- and go  
12 ahead, Nancy.

13 MS. BUERMEYER: Okay. I just want to make sure  
14 nobody else wants to talk. I've been talking a lot.

15 (Laughter.)

16 MS. BUERMEYER: Nancy with Breast Cancer  
17 Prevention Partners.

18 So many things to say. The reason I asked to  
19 speak was I wanted to follow up on something I'd said. I  
20 talked about those intervention studies. And I just want  
21 to make absolutely clear that our organization is not  
22 about telling kids that you shouldn't use specific  
23 products. Our organization is about telling the FDA that  
24 you shouldn't allow those chemicals in the products to  
25 begin with.

1           We do not believe you can shop your way out of  
2 the problem, nor should you have to. That these are  
3 really pieces of data that we take to federal and State  
4 agencies to say you're not doing your job to protect  
5 people. And if you did protect them, if you did get those  
6 chemicals out of all of the products, kids would be safer,  
7 and issues around their health would not be nearly the  
8 concern that they currently are.

9           And, you know, to your part, Colin about the sort  
10 of follow-ups, you know, epidemiological studies, like  
11 studying people over long periods of time, you know,  
12 longitudinally, rate for this stuff wicked expensive. And  
13 that's a technical term "wicked expensive".

14           (Laughter.)

15           MS. BUERMEYER: Which is why it brought me back  
16 to your -- to one of the things you said earlier about the  
17 precautionary principle. You know, industry is going to  
18 say, the chemical not -- it's not dangerous, and you're  
19 not exposed to it. And we can say, yes, we are exposed to  
20 it, and it is hazardous. Well, you don't have enough of  
21 it to be a problem. So there's the whole sort of hazard  
22 versus risk.

23           And the precautionary principle gets us to a  
24 place -- although, it is a dirty word in politics, and we  
25 need to change that. You know, like we don't talk about

1 it, because industry -- you know, because industry has  
2 convinced legislators that precautionary principle  
3 means -- chemophobia is the term they love to use. You  
4 know, afraid of chemicals.

5           But we shouldn't have to show that a specific  
6 level makes -- results in a specific health outcome. We  
7 need to -- we should show that we're exposed to it, and  
8 that there is -- there are health concerns associated with  
9 that, based on scientific evidence. And that should be  
10 enough. It's not in our world, and that's part of what I  
11 think we all have to work collectively to change is to  
12 make sure that we can make the case, in a way that is  
13 reasonable and get the governments to respond to our  
14 health rather than industry's profits.

15           MS. PATTON: Thank you. I'm Sharyle Patton from  
16 Commonweal. And I just think the presentations have been  
17 so inspiring and excellent. Thank you so much for all the  
18 work you're doing. It's outstanding. It gives me a whole  
19 lot of hope.

20           I wanted to bring up something that I don't think  
21 we've talked about very much, which is in many  
22 communities, the community itself is not united against  
23 stopping the source of pollution, because many people in  
24 the community are employed by the polluter. And so they  
25 may want to know their levels in the air, water, and soil.

1 And in their own bodies, they may not want to talk about  
2 it, because the job is what they've got. It may not be  
3 the best job, a good job, or what they want.

4 But nevertheless, they'll hold onto it, and not  
5 want to speak out too much against the polluter, because  
6 life is tenuous as we know. The economic situation in  
7 this country is being degraded by current political  
8 actions at the federal level.

9 Sorry. Can you hear me now?

10 I can hear myself so loud.

11 (Laughter.)

12 MS. PATTON: So I just -- I just think that's --  
13 it's a tough conversation to have to try to bring in  
14 members of the community that are employed by the  
15 polluter. I run into that around oil and gas production  
16 sites and agriculture communities. But it's something  
17 that's going to be -- continue to divide communities, and  
18 we have to figure out a way to deal with this. So that is  
19 one thing to talk about.

20 And the other I think is once people know their  
21 chemical body burden, and they're given their results  
22 back, and the results, of course, are often not going to  
23 give them the kind of information that they prefer --  
24 would like to have, which is this chemical is causing this  
25 health outcome. We'll just get rid of it and we'll be

1 fine. It's usually more complicated than that.

2 But once they have their -- that information,  
3 they carry it with them for the rest of their lives. And  
4 they -- there needs to be some way to address concerns  
5 they will have. When you talk to a physician immediately  
6 after getting your results, it's also good to talk to a  
7 physician or someone three months later, or six months  
8 later, because the safety standards may have changed how  
9 you evaluate the toxicity of a chemical in terms of  
10 socioeconomic status, or stress, or other chemicals, or  
11 epigenic change, you know, intergenerational  
12 vulnerabilities that are inherited.

13 Science will evolve. So it's always a way to  
14 think about people should be able to come back to somebody  
15 to talk about concerns that they may have, and also to  
16 learn a little bit more about the continually emerging  
17 science that tells us how our bodies are continuing to  
18 mirror the pollution outside to the pollution inside.

19 So it's an ongoing conversation. It's not just a  
20 biomonitoring study that empowers a community and  
21 acknowledges the wisdom of the community, and creates a  
22 dialogue with the scientists and the policymakers. It's  
23 more than that. It's really more than that.

24 So it's not that the California Biomonitoring  
25 program can take this on, but all of us together find can

1 ways to address some of these issues. But I think all of  
2 the Biomonitoring Program is doing excellent work as  
3 benchmark science, benchmark process. And I think  
4 everyone is so proud to be part of that.

5 And, Nancy and I, of course, are very proud to  
6 have been part of the initiative -- Breast Cancer Partners  
7 and Commonweal to initiate some of it. And I'm proud of  
8 very much what has happened. And I hope we can find a way  
9 to keep strong, keep it going, and keep it relevant.

10 So thanks, everybody.

11 MS. GRACIA-SANTIAGO: This is Laura. To speak on  
12 your first comment, you're absolutely right, there have  
13 been a lot of times when I'm organizing -- when I'm door  
14 knocking and I'm doing outreach with folks in our  
15 community, and a lot -- a lot of folks are like, well, the  
16 refinery is doing a lot better now. When I was growing  
17 up, you know, the paint was chipping off the houses, and  
18 that's not happening anymore, so they're doing something  
19 good.

20 And it's, you know -- and there's definitely --  
21 there's definitely still some tension, right, in regards  
22 to really addressing the polluter, but also recognizing  
23 that -- and I this is very like hyper-localized in  
24 Richmond, you know, fossil fuels are running out. Like,  
25 we can't keep, you know, relying on them, especially not

1 in environmental justice communities, where we've been on  
2 the front lines, and our health has been, you know, put --  
3 has continuously been put aside, and to make sure that the  
4 oil industry is still running.

5           So the way we see it is in -- and when we -- when  
6 we are talking to community, recognizing we understand  
7 that they're big employers, but it doesn't mean that  
8 they're the only ones, right? And the reason that we feel  
9 like it -- they are is because there's been so much  
10 suppression on renewable energy. So then our push is  
11 while we're fighting the bad, while we're organizing to  
12 limit refinery pollution to decommission the refinery, we  
13 also need to actively be moving towards renewable energy,  
14 right?

15           We need to build the good. We need to make sure  
16 that the renewable energy is available in our communities,  
17 low income communities. Seventy-five percent of Richmond  
18 residents, community members, are renters. And that makes  
19 the automatically not available for solar panels So how  
20 we make solar energy and renewable energy accessible to  
21 our low income and communities of color.

22           So we're moving towards a just transition, right?  
23 Moving away from this extractive economy that -- you know,  
24 folks are talking about the warehouses. They not only  
25 pollute, but they also extract so much from folks that

1 work there. Some of our community -- one of our community  
2 members, her mom works at one of the warehouses. And my  
3 young person has like -- she's the -- she's the oldest one  
4 of seven. And so she -- she's -- you know, she's the one  
5 that's doing all of the daily, like, making food, and all  
6 of that, because her mom is working at this warehouse  
7 incredibly long shifts, overnight shifts.

8 She has to drive out to work. So even though it  
9 is a polluter, it's also just so -- extracting so much  
10 from that -- from their personal life and their family.

11 So a just transition also includes meaningful  
12 work, right? Being able to put people at the center and  
13 make sure that we're still building these relationships  
14 that we need in order to thrive as a community.

15 CHAIRPERSON SCHWARZMAN: Laura?

16 MS. GRACIA-SANTIAGO: Yeah.

17 CHAIRPERSON SCHWARZMAN: I'm sorry. I just want  
18 to -- we have ever to close.

19 MS. GRACIA-SANTIAGO: Oh, okay. That's it. A  
20 just transition. Let's do it.

21 CHAIRPERSON SCHWARZMAN: Thank you.

22 On that note, I want to thank everybody for their  
23 contributions to today's discussion. It was really  
24 interesting to me to run the Panel meeting this way that  
25 we haven't done before. And I so appreciate having our

1 guest discussants here, and the participation of everybody  
2 in the room.

3 We're going to transition now to a final quick  
4 presentation that Sara is going to make about potential  
5 topics for 2018 Scientific Guidance Panel meetings. And I  
6 know she would appreciate all the input that you have.

7 While that's getting started --

8 MS. HOOVER: You don't have to leave this is  
9 going to be really short.

10 So, yeah.

11 (Laughter.)

12 CHAIRPERSON SCHWARZMAN: Stay right where you  
13 are.

14 MS. HOOVER: No, we're actually not -- so because  
15 of the arrangement, I'm not actually going to present my  
16 slides. I just want you to pull out your handout, which  
17 is in your packet, which is a green handout that says  
18 possible SGP topics. For those of you on the webinar, you  
19 can find the link on the meeting page. It's just the link  
20 called possible topics for 2018 SGP meeting.

21 So a little bit different, but just to deal with  
22 the logistics of the arrangement, we won't bother with  
23 actually slides.

24 We do this every year. We do this every  
25 November, because we like to get input from the Panel, as

1 well as the public, on our three meetings. We're mandated  
2 by our law to have three meetings per year. And we like  
3 to try to have a theme like we did today.

4           So this just gives some ideas on things we have  
5 in mind. As usual, we'll be reporting back on our nearly  
6 completed and ongoing studies. This first page talks  
7 about the ACE study you heard about today, the foam  
8 replacement study, as well as CARE and the Diesel Exposure  
9 Project. So we'll be reporting back -- we'll probably  
10 have an in-depth report back on ACE results maybe around  
11 July, including community partners.

12           Similarly, we'll be inviting partners of the  
13 FREES study to join us maybe in November. And we'll  
14 continue to give updates on these really interesting  
15 studies that we're launching.

16           That being said, if there's a particular study  
17 that people really want to hear about, please let me know.

18           The next slide is from the laboratory. In  
19 addition -- so the laboratory hasn't given a formal update  
20 since last November. They'll give a formal update of  
21 their work in March. And in addition to the normal just  
22 project updates on where they are, here's some of the  
23 information of what they're working on now. They provided  
24 this to me. And today told me that there's actually an  
25 error in one bullet so I want to flag that.

1           Their analyses in participants under PFASs is  
2 actually serum not urine. So if you can X that out and  
3 put serum.

4           So going back up to the top of the slide, we'll  
5 be discussing some -- continuing work -- so again, in  
6 spite of our diminishing resources, we always like to do  
7 as much as we can with what we have. One of the things  
8 that one of our labs -- the DPH lab is working on is to  
9 expand our phenols panel into some of the, for example, a  
10 replacement chemical for BPA, as well as expanding the  
11 phthalates panel into phthalates that are more in current  
12 use than some of the ones we've been measuring.

13           The DTSC lab will continue their work on the  
14 fluorinated compounds. This first bullet is an  
15 interesting concept of looking at the PFASs in serum,  
16 simultaneously with measuring PFASs in those participant's  
17 drinking water. So that it should be a really interesting  
18 pilot study you'll hear about.

19           They're also working on a high efficiency method  
20 for PFASs. You'll hear some about our development of the  
21 serum cotinine method that the DT -- the DPH lab has been  
22 working on. And then I did allude to earlier this work on  
23 non-targeted or semi-targeted screening. It's something  
24 that we value very much, and we had a great presentation  
25 on that in July.

1           We're going to circle back on that, and the DTSC  
2 Lab is actually working to apply that already in some  
3 vulnerable populations, like female firefighters and  
4 mother-infant pairs. So that's just a flavor of some of  
5 the lab updates. And again, if there's particular topics  
6 people are really interested in, you should flag those for  
7 me.

8           The next slide was going to be animated. So  
9 you'd be able to read the chemical selection. So every  
10 year -- so for those of you who are not so familiar with  
11 or program, one of the key roles of the Scientific  
12 Guidance Panel has been to work on chemical selection for  
13 Biomonitoring California, i.e. adding to our list of  
14 so-called designated chemicals, which is the entire pool  
15 from which we can choose to biomonitor.

16           And we regularly evaluate -- you know, we stay up  
17 with the literature, we look for emerging chemicals. One  
18 of the things that we were tracking is chemicals used in  
19 UV applications, like benzophenones and phenolic  
20 benzotriazoles. We've decided we're proposing, and the  
21 panel can certainly comment on this, to postpone  
22 consideration of this. It's quite a large effort to do a  
23 document like this. And OEHHA is involved in leading the  
24 diesel study right now.

25           As you also saw, we're declining in lab

1 resources. So to focus on doing more chemical selection  
2 doesn't seem like a great use of staff resources. And  
3 last, we are becoming a pretty mature program after 10  
4 years. We have a great range of chemicals already on our  
5 list, including chemicals by class.

6           Again, that being said, if you have a specific  
7 idea for a chemical selection item, I'd be happy to note  
8 that, and we can try to find a spot for it, either in '18  
9 or '19.

10           The next slide talks about this theme that we're  
11 planning for March, which is to really try to put a capper  
12 on. So last March, we celebrated our 10th anniversary.  
13 We had a special event to highlight our accomplish --  
14 accomplishments so far. We kind of want to close that  
15 celebration by looking into some of our key findings from  
16 our first 10 years of studies, and looking at that as an  
17 overview and trying to integrate that information.

18           Also -- Amy Dunn, also from OEHHA, and our web  
19 developer Uli Weeren have been working on this really  
20 great new website feature called the findings feature,  
21 which is going to be presenting -- it's tying -- the  
22 feature will be tied to the CARE Study, so it will be  
23 showing -- it has the ability to look at findings by  
24 region, so you can click on a region and see what work is  
25 being done there and the findings that have been done

1 there. So this is going to be a demo to the Panel to look  
2 at design and possible content input. That will be in  
3 March.

4 And then unfortunately, we have to again have  
5 this conversation about what should we prioritize in view  
6 of declining resources. We actually had a really valuable  
7 discussion of that last March. So we want to go back and  
8 harvest that. We had guests discussants on that topic.  
9 We'll take a look at that. We also will be fortunate  
10 enough to engage Deanna again to work on a summary report  
11 of our EJ activities, including today's discussion, and  
12 try to look at that as part of prioritizing our future  
13 work.

14 So of the other possible topics, we often have  
15 special sessions as part of the SGP meetings. And this  
16 has come up today, how best to apply biomonitoring data to  
17 help evaluate regulatory effectiveness and refine policy.  
18 So we really -- that's one of our -- the goals of our  
19 program, and we want to get into more discussions of that  
20 with -- given the data and resources that we have.

21 We also want to reach out to other State agencies  
22 that we haven't connected with as much, for example, the  
23 Air Board and the Water Board to look at areas of  
24 collaboration and look at ways to partner going forward.

25 For example, there's a lot of interest in those

1 agencies on emerging contaminants in drinking water and  
2 air. And that's something that we could definitely work  
3 with them on.

4 And then Oliver Fiehn, who's not here today, has  
5 raised the idea past about looking at the ethics related  
6 to doing non-targeted screening studies. So we want to  
7 pair a discussion of non-targeted screening with,  
8 hopefully, finally getting to the ethics discussion.

9 And last, we're hoping to -- so OEHHA is leading  
10 a study on synthetic turf, potential harmful chemical  
11 exposures from synthetic turf, and they're working on a  
12 protocol for a biomonitoring project. And that might be  
13 ready for comment from the SGP.

14 And that is it for my talk. We have only two  
15 minutes left about. We have to vacate. So I encourage  
16 you to pick up one of these cards.

17 Great. So Amy has handed these cards out, which  
18 if you -- you can -- on that card, you could write I'm  
19 really interested in this topic from the handout, or I  
20 propose an additional topic. We also are always happy to  
21 hear from the public any time at this email address.

22 And with that, I will close and hand it back to  
23 Meg.

24 CHAIRPERSON SCHWARZMAN: Thank you.

25 Yeah. Sara particularly mentioned to me in

1 preparation for this meeting how much she would like to  
2 hear input on future topics. So although, there isn't  
3 time for the discussion of it now, she really would like  
4 emails or these comment cards.

5           And along those lines, as long as we're talking  
6 about the website and email, I think one of the things  
7 coming out of today's conversation is how to make the data  
8 from these -- this Program available to community groups?  
9 And there's a lot that OEHHA posts on the Biomonitoring  
10 California website. And I think they would be eager for  
11 your input about how to make that -- the communication of  
12 that information most accessible and useful to your group.

13           So if you have time to spend on the website  
14 looking at the results of the Biomonitoring California  
15 studies, and have input on how to make that most useful, I  
16 think that would be very welcome. So with that, we need  
17 to wrap-up the meeting. That's the announcement about the  
18 topics. The -- and that email is  
19 [biomonitoring@oehha.ca.gov](mailto:biomonitoring@oehha.ca.gov), if you want to provide input.

20           And so there will be a transcript of this meeting  
21 posted on the Biomonitoring California website when it's  
22 available. And Program staff are going to be in touch  
23 with SGP Panel members to schedule the three 2018 meetings  
24 that will take place in March, July, and November.

25           They're asking that if you know about specific

1 schedule constraints in those three months to go ahead and  
2 get in touch with Sara about those. And the March meeting  
3 will be held in Sacramento, just for everybody's  
4 preparation.

5 So with that, we will conclude the meeting.  
6 Thank you, everybody, for your input and presence today.

7 (Applause.)

8 (Thereupon the California Environmental  
9 Contaminant Biomonitoring Program, Scientific  
10 Guidance Panel meeting adjourned at 4:45 p.m.)

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## 1 C E R T I F I C A T E O F R E P O R T E R

2 I, JAMES F. PETERS, a Certified Shorthand  
3 Reporter of the State of California, do hereby certify:

4 That I am a disinterested person herein; that the  
5 foregoing California Environmental Contamination  
6 Biomonitoring Program Scientific Guidance Panel meeting  
7 was reported in shorthand by me, James F. Peters, a  
8 Certified Shorthand Reporter of the State of California,  
9 and thereafter transcribed under my direction, by  
10 computer-assisted transcription.

11 I further certify that I am not of counsel or  
12 attorney for any of the parties to said meeting nor in any  
13 way interested in the outcome of said meeting.

14 IN WITNESS WHEREOF, I have hereunto set my hand  
15 this 26th day of November, 2017.

16  
17  
18  
19 

20  
21  
22 JAMES F. PETERS, CSR  
23 Certified Shorthand Reporter  
24 License No. 10063  
25