

THE CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)
LEAD EXPOSURE AND PREVENTION ADVISORY COMMITTEE
(LEPAC) MEETING

MEETING HELD VIA ZOOM WEB VIDEO CONFERENCING

OCTOBER 30, 2020 9:00 A.M.

PRESIDING OFFICER: PERRI RUCKART, MPH,
DESIGNATED FEDERAL OFFICIAL, NCEH/ATSDR

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TABLE OF CONTENTS

WELCOME, INTRODUCTIONS AND ANNOUNCEMENTS	7
CDC'S LEAD-FREE COMMUNITIES INITIATIVE: THE PATH TO LEAD EXPOSURE ELIMINATION	19
COVID-19 AND CDC LEAD SURVEILLANCE	47
NCEH LAB ACTIVITIES	65
HUD'S ROLE IN LEAD POISONING PREVENTION	93
BLRV WORKGROUP UPDATE	122
FACILITATED DISCUSSION: EFFECTIVE SERVICES AND BEST PRACTICES REGARDING LEAD SCREENING AND THE PREVENTION OF LEAD POISONING	136, 159 (cont'd)
PUBLIC COMMENT	150
FACILITATED DISCUSSION: RESEARCH GAPS AND ADDITIONAL RESEARCH NEEDS	173
WRAP UP AND DISCUSS TOPICS FOR NEXT MEETING (CHAIR)	205

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Transcript Legend

(sic) - Exactly as said.

(ph.) - Exact spelling unknown.

-- Break in speech continuity.

... Indicates halting speech, unfinished sentence or omission of word(s) when reading.

Quoted material is typed as spoken.

^ represents inaudible or unintelligible speech or speaker failure, usually failure to use a microphone or multiple speakers speaking simultaneously.

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P R O C E E D I N G S

WELCOME, INTRODUCTIONS AND ANNOUNCEMENTS

MS. RUCKART: Good morning. Welcome to CDC's second Lead Exposure and Prevention Advisory Committee meeting, that's the LEPAC.

I'm Perri Ruckart, the LEPAC Designated Federal Officer. For those of you who don't know me, I'm an epidemiologist by training. I've been with CDC for over 20 years and with the Childhood Lead Poisoning Prevention Program since 2017 where I'm currently the team lead for the Program Development, Communications, and Evaluation team.

And we're glad that you're joining us this morning virtually, and we thank you for your flexibility. And I just want to note that audience members will be muted during the meeting. The meeting will be recorded for transcription purposes. A transcript of the meeting, as well as a meeting summary, will be made available on our website in the near future. And because we have a full schedule, we will adhere to the agenda times as best as we can.

So I'd like to quickly summarize the highlights from the April meeting which was our first meeting. Common themes that were discussed during the last meeting were

1 primary and secondary prevention, the blood lead reference
2 value which is the BLRV, environmental lead in soil and
3 air, lead poisoning prevention at the local community
4 level, messaging, including to parents, families and
5 caretakers, occupational or take-home lead exposure, and
6 evaluating best practices.

7 As far as the research gaps identified during the
8 last meeting, they were evaluating existing programs and
9 current interventions, identifying best practices,
10 reviewing existing funding structures and identifying
11 resources that have the most impact, conducting a cost
12 benefit analysis, the CBA of the BLRV, verifying existing
13 lead hazard models, lifelong effects of lead exposure,
14 culturally specific sources, specific sources of exposure
15 such as aviation gasoline, otherwise known as avgas, lead
16 in bullets and occupational exposures, lead hazard control
17 ordinances, and a systematic method for collecting and
18 processing blood lead testing.

19 I know I went through all of this information on
20 themes and gaps quickly, but it's available on the CDC
21 LEPAC website if anyone wants to refer to it later on for
22 more details. And as a result of the April meeting, we
23 established a BLRV workgroup that is composed of eight
24 members, three of whom sit on the LEPAC, and later on in
25 the agenda we'll hear an update from this workgroup.

1 During the last meeting, we heard public comments on
2 occupational lead exposures in adults and children, the
3 BLRV, improving blood lead testing, standards for lead in
4 soil dust and lead in plastics. I want you to know that
5 the agency seriously considers these comments when
6 planning and conducting our work. I will now turn it over
7 to the members and speakers to briefly introduce
8 themselves when I call on you. Let's start with Dr. Pat
9 Breysse, he's the Director of CDC's National Center for
10 Environmental Health.

11 **DR. BREYSSE:** Good morning, everybody. Perri just
12 gave you my affiliation, so I'm happy to be with you
13 today.

14 **MS. RUCKART:** Okay, thank you. I'll turn it over to
15 Matt Ammon, he is our LEPAC Chair.

16 **MR. AMMON:** Hi, everybody. This is Matt Ammon, I am
17 the Director of the HUD Office of Lead Hazard Control and
18 pleased to join everybody again. But, first of all, Perri
19 did a great job in summarizing it and her and her team did
20 a great job in organizing this meeting, as well. So thank
21 you to everyone.

22 **MS. RUCKART:** Thank you, Matt. Monica -- Commander
23 Monica Leonard, she's the Acting Branch Chief of the Lead
24 Poisoning Prevention and Surveillance Branch, that is
25 proposed.

1 **CDR LEONARD:** Yes, hi, everyone. Good morning. And
2 thank you so much for joining us today for our second
3 LEPAC meeting. We're so excited as we're in the midst of
4 celebrating National Lead Poisoning Prevention Week, and
5 we've had an engaging week of activities with all of our
6 partners. We want to thank each one of our advisory
7 committee members for all of your hard work that you have
8 put in in preparation for our second meeting today.

9 We also have joining us our Division Director,
10 Dr. Svendsen, as well as Deputy Director, Ms. Harrison.
11 And so we're so excited to have all of you on board today
12 especially as some of us here in Atlanta may be
13 experiencing some of the power outages. So thank you so
14 much for weathering the storm. Thank you. I'm going to
15 pass it over to Perri.

16 **MS. RUCKART:** Thank you, Monica. Next is Jeanne
17 Briskin.

18 **MS. BRISKIN:** This is Jeanne Briskin from -- I'm the
19 Director of EPA's Office of Children's Health Protection.
20 And I appreciate the opportunity to participate in today's
21 discussions. I'm looking forward to bringing EPA's
22 activities to the group.

23 **MS. RUCKART:** Great, thank you. Next, Wallace
24 Chambers, Junior.

25 **MR. CHAMBERS:** Hello everyone, this is Wallace

1 Chambers, Deputy Director of Environmental Public Health
2 at Cuyahoga County Board of Health, and I also serve as a
3 member of the blood level reference value workgroup.
4 Thank you.

5 **MS. RUCKART:** Thank you. Next is Tiffany DeFoe.

6 **MS. DEFOE:** Hi, this is Tiffany DeFoe. I am the
7 Director of the Office of Chemical Hazards for Metals and
8 the Directorate of Standards and Guidance within the
9 Occupational Safety and Health Administration. I'm very
10 pleased to participate today.

11 **MS. RUCKART:** Thank you, Tiffany. Next is Dr. Nathan
12 Graber.

13 **DR. GRABER:** Hi, I'm Nathan Graber. I'm a general
14 pediatrician in upstate New York. I formerly worked with
15 the New York State Department of Health and the New York
16 City's Department of Health in their lead programs. And
17 I'm also a member of the blood lead reference value
18 workgroup. And I'm happy to be here today. Thank you for
19 having me.

20 **MS. RUCKART:** Okay, thank you. Next is Karla
21 Johnson.

22 **MS. JOHNSON:** Hi, I'm Karla Johnson. I am the
23 Administrator of the Healthy Homes Department in Marion
24 County, Indianapolis. And, but more importantly, I think,
25 and what I -- where my passion lies is this is that I'm

1 also a mother of a child that was lead poisoned when he
2 was one; he's now 22. So I'm happy to be here, thank you.

3 **MS. RUCKART:** Thank you. Next, oh, hold on, my son
4 is coming in. I'm sorry.

5 **DR. BREYSSE:** Oh, the joys of zooming --

6 **MS. RUCKART:** Yeah. I'm sorry, my apologies.

7 **DR. BREYSSE:** Don't apologize. Don't apologize.

8 **MS. RUCKART:** It's just me and the kids. I'm going
9 to have to go get someone something in a minute here.
10 But, okay, so that was, I'm sorry, was that just Karla?
11 Next is Donna Johnson-Bailey.

12 **MS. JOHNSON:** Yes, it was me.

13 **MS. JOHNSON-BAILEY:** Good morning, everyone. I'm
14 Donna Johnson-Bailey, I'm here from the USDA Food and
15 Nutrition Service. I'm a Senior Nutrition Advisor within
16 the food nutrition service and we administer 15 nutrition
17 assistance programs, including the WIC program, which you
18 are all familiar with. I look forward to the discussions
19 today and appreciate the opportunity to participate.

20 **MS. RUCKART:** Okay, thank you. Next is Dr. Erika
21 Marquez.

22 **DR. MARQUEZ:** Hi, I'm Erika Marquez. I'm with UNLV
23 School of Public Health and I'm really excited to be here
24 today. Thank you.

25 **MS. RUCKART:** Thank you. Dr. Howard Mielke. Are you

1 on?

2 **DR. MIELKE:** Yes, I am on. Good morning, we -- we
3 got our power back. My name is Howard Mielke. I'm at
4 Tulane University School of Medicine and I do work on
5 environmental issues and, especially, lead in soils in the
6 urban environment and of children and we've connected that
7 with children's exposure throughout the city of New
8 Orleans. I suppose importantly I was and am the father of
9 a lead poisoned child and that has certainly spurred a lot
10 of my attention on the issue.

11 I've sent some recent articles that I think are
12 terribly important in looking at the underappreciated
13 environmental exposure that is the result of the amount of
14 lead that has accumulated within, especially urban, soils
15 and they're unevenly distributed in the soils. So my main
16 message would be that there are alternative interventions
17 for reducing exposure for the most vulnerable, especially
18 children in the city. And I think the current efforts
19 basically fail to account for the accumulated fine lead
20 dust in community soils and these soils turn out to be
21 where they're contaminated, they affect both the indoor
22 and outdoor environment, especially for children where
23 they play. Thank you very much.

24 **MS. RUCKART:** Okay, thank you. Next is Dr. Anshu
25 Mohllajee.

1 **DR. MOHLLAJEE:** Hi, good morning from California.
2 I'm Anshu Mohllajee. I'm the head of the Epi Unit in the
3 Program Evaluation Section in the Childhood Lead Poisoning
4 Branch in California. And I'm happy to be here, thank
5 you.

6 **MS. RUCKART:** Thank you for joining us. I know it's
7 pretty early over there on the west coast. And we have
8 another west coaster from California, Dr. Jill
9 Ryer-Powder. Jill?

10 **DR. RYER-POWDER:** Okay. Sorry about that. Yes, my
11 name is Jill Ryer-Powder. I'm a risk assessor
12 toxicologist with Environmental Health Decisions. I was
13 recently appointed to be chairman of the blood lead
14 reference value group and I'm happy to be here and honored
15 to be a member of this committee.

16 **MS. RUCKART:** Great, thank you. And then next is Dr.
17 Sharunda Buchanan.

18 **DR. BUCHANAN:** Good morning, everyone. Happy to be
19 with you this morning. Just by way of introduction, I've
20 been at CDC, well the NCEH/ATSDR for over 30 years,
21 working in the arena of childhood lead poisoning for over
22 25 years and I serve as Director of the Office of Priority
23 Projects, Innovation, and Environmental Justice. Good
24 morning.

25 **MS. RUCKART:** Thank you. Next Jana Telfer, our

1 amazing facilitator.

2 **MS. TELFER:** Good morning. Thank you for the
3 opportunity of joining you again and I would stipulate
4 that my real title in the agency is Strategic Projects
5 Officer for the National Center for Environmental Health
6 and Agency for Toxic Substances and Disease Registry.
7 Thank you.

8 **MS. RUCKART:** Thank you. And I want to mention that
9 Dr. Michael Focazio and Ms. Tammy Barnhill-Proctor, both
10 LEPAC members, are not able to join us today, but
11 Dr. Focazio is a Program Coordinator with the U.S.
12 Geological Survey and Ms. Barnhill-Proctor is a
13 Supervisory Education Program Specialist with the U.S.
14 Department of Education. Is there anyone else who's a
15 LEPAC member who I may have missed? Dr. -- Monique, are
16 you on?

17 (no response)

18 **MS. RUCKART:** Okay. It seems that we were unable to
19 be joined by Dr. Monique Fountain. She is from HRSA,
20 she's also a LEPAC member, so hopefully she can join us
21 the next time.

22 Okay. So we are about 15 minutes ahead of schedule.
23 We have starting at 9:30 for Dr. Buchanan's prevent --
24 presentation.

25 **DR. BREYSSE:** Hey, Perri?

1 **MS. RUCKART:** Yes.

2 **DR. BREYSSE:** This is Pat. Do you mind if I say a
3 few words now that we've went through the introductions,
4 or...

5 **MS. RUCKART:** Oh, please go ahead. I would love
6 that. Thank you.

7 **DR. BREYSSE:** Yeah, yeah. And I, first of all, I
8 want to make sure did we -- did we leave anybody off from
9 our staff who might be on that didn't get introduced? Or
10 are we sure we covered everybody, I just want to make
11 sure.

12 (no response)

13 **DR. BREYSSE:** Hearing nothing, yeah, listen, I -- I
14 want to -- I want to thank everybody, you know, as the
15 Center Director and the Director of ATSDR. You know,
16 Perri kind of went through some of the things we talked
17 about during our last meeting. And as you could tell
18 there's a lot to unpack and we really appreciate the
19 advice, the input and work with you to -- to address those
20 issues. There's some important things I just want to
21 emphasize. One is that, you know, lead and children's
22 environmental health remain our priorities for the Center
23 for Environmental Health and ATSDR going forward. So
24 obviously we have a foot in the arena in both sides of the
25 equation in terms of the Center for Environmental Health

1 and ATSDR. And I'm happy to say when there's a lead issue
2 at ATSDR, they work very closely with the lead program in
3 the Center for Environmental Health to make sure that we -
4 - we address it in a systematic effective manner going
5 forward.

6 But you know, there's a couple things I want to make
7 sure that we remain focused on and one is, moving forward
8 on this initiative that we call the Lead-Free Communities
9 Initiative. And you know, as -- as we talked about
10 before, it's -- it's almost embarrassing as a public
11 health professional that we're still talking about lead
12 today since we've known about the problems with lead, for
13 the most part sources of lead. For the most part we know
14 how to address the exposures and it's just financial
15 constraints, I think, that keep us in this position going
16 forward.

17 So, you know, as the environmental health field moves
18 forward, I look forward to continuing to work with our
19 federal partners at HUD, EPA and other agencies, as well
20 as our nonprofit partners and the private sector to
21 develop this notion of what a lead-free city looks like.
22 It's time to move towards eliminating hazardous sources of
23 lead from -- from children's environments. And you know,
24 the cost benefits, I'll repeat, are profound and anyone
25 who isn't familiar with the Pew report, assessing the

1 benefits of -- of eliminating lead from children's
2 environments, I -- I encourage you to look at that report
3 going forward.

4 So we want to move that initiative forward and we
5 will work with our federal partners and -- and any other
6 partners we can move that forward. You'll hear a little
7 bit about that from Sharunda about -- in a minute. But I
8 want to, you know, put my support and my strong support to
9 that effort going forward.

10 I think the other priority area that we've already
11 talked about before is the issues around the blood lead
12 reference value. And I look forward to hearing from the
13 blood lead reference value workgroup, where they are with
14 that, and I'm looking forward to coordinate any efforts
15 that we have, again, with our federal partners and -- and
16 our -- and our nonfederal partners, as well, moving that
17 forward, as well. I think nailing that, addressing that
18 is -- is an important issue for us going forward.

19 And then finally, we also want to make sure that you
20 give us input on how we conduct surveillance and how we
21 utilize our funds through the proper (indiscernible)
22 program or have the states around -- around the children's
23 blood lead -- around children's lead protection issues
24 going forward. And so those are probably, you know, the -
25 - the major areas that we want to make sure that we focus

1 on going forward.

2 And I'm pleased with the leadership we have of the
3 lead program. I'm pleased with the support we get from
4 you all going forward and I'll be with you for most of the
5 day today. I might have to duck out for a little bit, but
6 I really look forward to listening to the discussions we
7 have. So, again, thank you for your time, thank you for
8 the commitment and let's move forward. Cheers.

9 **MS. RUCKART:** Okay. Thank you so much, Pat. We are
10 still a few minutes ahead of schedule, but I think we will
11 go ahead and get started with Dr. Buchanan's presentation.
12 That will allow us some more time later in the morning if
13 we need it for some of the speakers that might generate a
14 lot of discussions. So Dr. Buchanan, if that's okay with
15 you, I'd like to just get started with your presentation.

16 **CDC'S LEAD-FREE COMMUNITIES INITIATIVE: THE PATH TO LEAD**
17 **EXPOSURE ELIMINATION**

18 **DR. BUCHANAN:** That will be fine, Perri. Hopefully
19 everybody can hear me okay?

20 **MS. RUCKART:** Yes, great. Thank you.

21 **DR. BUCHANAN:** So I just want to say thanks to Pat,
22 who actually sort of gave me a segue into today's
23 presentation. I know folks are intrigued by the title of
24 the presentation. I've already gotten some calls ahead of
25 today's meeting about exactly what is that -- that

1 Lead-Free Communities Initiative. So just so you guys
2 will know, it's not the pathway, but it is a path to lead
3 exposure elimination and so I'll -- look for the next
4 slide.

5 We don't need to get into this; next slide, please.
6 So just right off the bat, I just want you guys to know
7 that the purpose of this Lead-Free Communities Initiative,
8 is, it's a proof of concept, if you will. It's not the
9 end all be all, but it's a place, it's a kickoff, it's a
10 starting place based on a multi-sectorial collaborative
11 agenda that will aid us in reaching the goal of
12 eliminating children's exposure to lead.

13 The goal, the immediate goal, of this particular
14 initiative which, hopefully, it will get us down the road
15 various years from now. But to start with, what we want
16 to do is to develop and pilot a model of primary
17 prevention interventions leading to what we're calling
18 lead-free communities.

19 And next slide, please. I'll tell you how we plan to
20 do that. At least, to get to a good starting point. I
21 don't have to tell this group about the dangers of lead,
22 particularly to our children, and we all know that no safe
23 blood level has been identified. But, you know, CDC and
24 our federal partners and all of us probably have for a
25 very long time had a goal of eliminating childhood

1 exposure as a public health concern and that has yet to be
2 achieved. There has been progress. Many of you and many
3 of us recognize the fact that lead was taken out of
4 gasoline and in soldered cans and a number of different
5 efforts but we still have a ways to go.

6 We also believe that a rigorous primary prevention
7 approach, of course removing those lead hazards in the
8 children's environment before exposure is optimal. We can
9 make sure that our children are not exposed in the first
10 place; that would be great. As Pat mentioned, this is
11 definitely no cheap endeavor. It is going to cost as we
12 move into what I call the last phase of really sort of
13 pushing forward in trying to eliminate children's
14 exposure. It's going to take all of us, not only us in
15 the federal government in the various sectors that we have
16 found ourselves in, but it's going to take some
17 multi-sectorial public-private collaborations to really
18 accomplish the goal of eliminating lead.

19 Next slide, please. I wanted to just pause for a
20 second and recognize all the many efforts that have gone
21 into this over the years. I know -- I've been at CDC as I
22 mentioned 30 years -- and I know more than four decades
23 we've been sort of addressing this issue, not only us at
24 CDC, but also my sister federal agencies, as well.
25 Through lots of congressional funding we've been able to

1 really sort of move the dial and move the needle on -- on
2 addressing children's exposure to lead.

3 It was with the congressional funding that we've
4 received that has been very helpful and enable us to do a
5 lot. And as I mentioned in our last gathering as the
6 LEPAC convened, you guys well know that we're all
7 coordinating on what we're calling a Federal Lead Action
8 Plan. All of our federal collective efforts are really
9 sort of moving forward in trying to make sure that we're
10 doing everything we can to remove children from lead.

11 There's been lots of state and local, territorial and
12 tribal efforts, as well, through grants, cooperative
13 agreements and contracts and community-based resources.
14 Also at the local level folks have really been sort of
15 moving forward in this space, really trying to do their
16 best in trying to eliminate that lead exposure. We've
17 been working also with national- and community-based
18 organizations for profit and nonprofit. Our academicians,
19 our researchers and other stakeholders have also been at
20 the forefront trying to really move the needle in this
21 arena.

22 Next slide, please. And so we want to continue with
23 this concept, again, not just our governmental resources
24 and our governmental efforts, but to move outside of
25 ourselves, to think about what kind of public-private

1 partnerships can we endeavor. Can we, you know, sort of
2 partner with industry and some of our philanthropies to
3 really sort of get the funding and the backing that we
4 need to push this needle all the way to where we're just
5 not reducing, but we're actually eliminating as well.

6 So one of the things that we want to do in terms of a
7 concept for this Lead-Free Communities Initiative is to
8 create a collaborative, if you will, and I say quasi
9 collaborative so I won't institute or activate any kind of
10 FACA rules here. But part of that is working with subject
11 matter experts within CDC and external to us, as well.
12 Again, having those public-private partners come to the
13 table and national organizations and other stakeholders to
14 really think about what is it that we need to do in the
15 terms of primary prevention under the guidance of primary
16 prevention to really move this forward.

17 We want to convene folks that have a vision or
18 interest in eliminating children's exposure particularly
19 in their environments and really sort of push the needle
20 on collaborating with an eye toward leveraging all the
21 efforts that are already underway, to really make this
22 something real that communities can undertake and actually
23 get the funding and the backing that they need to really
24 move it to the nth degree.

25 Next slide, please. So some of what we've been doing

1 -- and my staff is a very small staff, but we're working
2 with folks in the lead program also, not only on the NCEH
3 side but also on the ATSDR side, in terms of bringing
4 forth SMEs that can really help us to develop what we're
5 calling a model. And the idea is to sort of present the
6 framework to our external SMEs as we begin to convene
7 those, as well.

8 We want to work collaboratively to develop the model
9 and, of course, have an evaluation plan. We've already
10 started to talk about how we might pilot test a model in
11 selected communities by working with the Public Health
12 Institute's National Leadership Academy for the Public --
13 Public's Health. Again, as we develop a model internally
14 and sort of get the input from folks externally as well,
15 and we're coming together to think about how we can fund
16 such an effort, we want to also be working with those in
17 the communities to make sure that what we're creating is
18 something very viable and feasible.

19 Next slide, please. And why the -- the Public Health
20 Institute's National Leadership Academy for the Public's
21 Health. It's just an opportunity, they came along at the
22 -- at the right time. They have, and many of you may
23 already know about the -- the Leadership Institute. The
24 program is designed to actually bring together
25 multi-sectorial teams from across the country, and those

1 teams are usually four to six members. It's a one-year
2 long experiential learning program where the team
3 completes an applied public health project. But the idea
4 is to bring together a team that is multi-sectorial, it's
5 not just the folks in public health that we're looking
6 toward. But the folks in public health are reaching
7 across the aisle, working with folks in housing, and
8 working with folks in education, working with
9 philanthropies and even possibly working with industries
10 in -- in their -- in their communities. And with this
11 Public Health Leadership Institute, we can bring together
12 what we're calling a learning community to facilitate
13 interaction with this Lead-Free Communities initiative as
14 a project for this group.

15 Next slide, please. Next steps, we're right now in
16 the throes of working with the Public Health Institute to
17 select three communities to participate in this year's
18 academy, with the institute to actually design and focus
19 these leadership teams to really think about what it is in
20 their local communities that it would take to develop a
21 collaborative as we're doing so on a national level to
22 address lead elimination, lead exposure elimination, and
23 we're working with these multi-sectorial leadership teams
24 to promote development and piloting of the LFC model.

25 Next slide, please. One of the things that a lot of

1 you may know about already is it was right after the
2 Flint, Michigan crisis where lead was in their water and I
3 know a number of folks came together, national
4 organizations, a lot of community organizations, and they
5 developed what we're calling -- what it was called at the
6 time and I think they're still in existence, the Lead
7 Service Line Replacement Collaborative. And Resolve, a
8 community-based organization, was actually the facilitator
9 and organizer and convener of that group.

10 And we have also been fortunate enough to contract
11 with Resolve to help us think about our collaborative, as
12 well, the Lead-Free Communities Collaborative, for a
13 series of expert panel members coming together that
14 includes national organizations of some of our federal
15 partners, that include community members, thinking about
16 how we can come together to create a collaborative, as
17 well, and think about what it would take to actually
18 address and develop a model that will lead us to the goal
19 of eliminating lead in this country. In concert with CDC,
20 ATSDR, SMEs, we're beginning to draft the framework of the
21 model. This is just so we'll have something to -- for our
22 external SMEs and the external folks outside of CDC to
23 react to. And I've already been in discussion with folks
24 at the -- in our President's Task Force on Children's
25 Environmental Health and Safety Risks who created the

1 Federal Lead Action Plan to think about how we can get
2 them to collaborate with us, as well, and how we can begin
3 to socialize this concept of lead exposure elimination.

4 And so that's where we are, we're in the -- the
5 initial phases of it. What we really want to, as Pat
6 said, move from reduction, and we know it will take us
7 some time, to the thought of really thinking about
8 elimination. And so I know with the work that's going on
9 with the blood lead reference value and the many other
10 efforts that are -- that are on board right now, that
11 together we can actually do this and we can actually make
12 this a lead-free country or have lead-free communities
13 where our children are able to live and play and grow
14 without the -- the hazards of lead.

15 Next slide, please. And so with that, that sort of
16 summarizes the Lead-Free Communities Initiative. Again,
17 we're just starting this, but we're hoping to -- to make
18 some inroads as we create the model and as we convene
19 folks out there, some of you and others, to really begin
20 to think about how we can move this forward and make a
21 difference in the lives of our children. So I'll stop
22 there and see if anybody has any questions.

23 **MS. RUCKART:** Great, thank you, Sharunda. I'm going
24 to turn it over to Jana to help facilitate the discussion
25 portion.

1 **MS. TELFER:** Good morning, again, everyone. Just to
2 review in case you've forgotten how we worked it last
3 time, what we will do for these discussions this morning
4 is if you have a comment, and thank you, Matt, you have
5 illustrated exactly what we would like to do. I would
6 invite you to raise your hand using the hand raising
7 function at the bottom of your screen. You will see that
8 function over on the right, I believe. I have one
9 question and then I will call on people using first and
10 last name, recognizing that everyone has distinguished
11 degrees, in order to make it easier for the many attendees
12 who are listening but not necessarily able to see you to
13 associate names and voices and be sure that they're able
14 to hear who is -- is making the comment.

15 Before we begin, I have one question and that is for
16 Dr. Johnson. It looks on my screen as though you may be
17 joining by phone and so I don't know if you have the hand
18 raising capability.

19 **I.T. SUPPORT:** And you can raise your hand on the
20 phone by using star, nine.

21 **MS. TELFER:** Super. Thank you. Our host tells us
22 that we can, if you're just joining by phone, you can do
23 star nine, and that will help you raise your hand. If I
24 don't see that happen, then I will make sure that I call
25 on you, Karla Johnson, before the end of the question

1 round just in case technology fails us.

2 So let's begin with Matthew.

3 **MS. RUCKART:** Excuse me, Jana.

4 **MS. TELFER:** Yes, ma'am.

5 **MS. RUCKART:** This is Perri. I want to let you know
6 that Howard is putting a comment in the chat that he would
7 like to make a comment but he didn't have the ability to
8 raise his hand so please just keep that in mind. Thank
9 you.

10 **MS. TELFER:** Super. Thank you very much. I
11 appreciate your bringing that to my attention. All right.
12 So let's go first to our LEPAC Chair, Matthew Ammon.

13 **MR. AMMON:** Well, thank you. And thank you very
14 much, Dr. Buchanan, for that overview and I -- I really
15 just want to applaud Dr. Breysse and Dr. Buchanan for --
16 for this initiative, you know, that really focuses on
17 elimination. I know that moving in that direction has
18 really been something that we see, certainly as joint
19 agencies, that's something very critical, you know, as
20 Dr. Buchanan said to really move the needle.

21 And I know that is certainly one of the weaknesses of
22 the Federal Lead Action Plan that didn't really focus on
23 that. So as -- as you know, we have always stood ready to
24 work with you on this initiative. Again, I greatly
25 applaud the initiative and, you know, as you know given

1 with our funding and some of the higher dollar amounts
2 that we've been able to give out for communities, I -- I
3 don't know what your specific criteria is for a community,
4 but some of our high-impact neighborhood grantees around
5 the country who are in the, you know, nine to ten million
6 dollar range for each grant. You know maybe -- maybe a
7 really good location to -- to test this, but I -- I am
8 very excited to hear about this. I'm very excited to join
9 this initiative and, again, this is me really applauding
10 you focusing on where it needs to be, all the efforts
11 which is on elimination. So, thank you.

12 **MS. TELFER:** Thank you very much. For me, as an
13 observer, lead feels like smallpox. We are at the point
14 where we can make that final push and it's exciting to see
15 that happening. Howard Mielke, I know that you have
16 indicated that you'd like to make a comment.

17 And everyone be sure to remember to unmute.

18 **DR. MIELKE:** Okay. Can you hear me now?

19 **MS. TELFER:** Yes, sir.

20 **DR. MIELKE:** The comment I have regards the idea of
21 lead-free, this is a topic that we spent a lot of time
22 talking about back when I was working with lead-free kids
23 and we started realizing that unfortunately we -- there's
24 so much lead in the environment that it's a mistake to
25 talk about lead-free. We're going to have to live with a

1 lot of lead and the best we can do, I think, is lead safe
2 and I don't want to spend a lot of time on that idea, but
3 it's important to realize the amount of lead that has --
4 that has been released into the environment and is being
5 used in large numbers of ways and making it safe is what
6 probably is more achievable rather than trying to talk
7 about lead-free. Thank you.

8 **MS. TELFER:** Thank you. That's an important insight.

9 **DR. BUCHANAN:** Yeah. And this is Sharunda. Is it
10 okay if I respond for a second?

11 **MS. TELFER:** Yes, please.

12 **DR. BUCHANAN:** I just wanted Dr. Mielke to know that
13 -- that we do recognize that issue, as well. And what
14 we're doing is we're crafting what we're calling a working
15 definition of what we believe to be lead-free and, of
16 course, it's not, you know, zero micrograms per deciliter
17 or what have you. And you'll see that as we begin to
18 invite folks to the table to -- to actually help and
19 discuss that -- that working draft, as well.

20 Plus, we want to get to the lowest levels possible,
21 but we're also working with our communications group to --
22 to help us think about that terminology. We don't want
23 to, instead of misconstrue the fact, or have anybody think
24 that, you know, no there will never be any lead in our
25 environment. So we -- we are working on it, a definition

1 and what we're calling a working draft to actually sort of
2 communicate what do we mean or what does that look like in
3 terms of lead-free. So I appreciate that comment.

4 **MS. TELFER:** Thank you, Sharunda. We'll go next to
5 Karla Johnson.

6 **MS. JOHNSON:** Thank you. I had a couple of questions
7 and some thoughts. I like -- I love the idea of a
8 lead-free community. One of the things that I hope a
9 partner would be a part of this, as well, as a partner
10 that comes to the table that while we're looking at
11 primary prevention doesn't forget those children that have
12 already been lead poisoned. And again this is probably a
13 -- a drumbeat that I'll -- I'll have all today and that is
14 that I think a lot of focus -- and I've been in this field
15 for a long time and a lot of focus is on keeping children
16 from getting poisoned. And while there is some focus on
17 providing services when they are younger they are --
18 become less of a focus as they get older and I am, again,
19 the mom of a 23-year-old who is lead poisoned. So I don't
20 think that we want to forget these children as they get
21 older. It seems like the focus is really on them while
22 they're young and up to six years old and then they're on
23 their own. That's my first point.

24 My second one was actually, in -- in response to
25 Matt's comment, and it's been a while since we've had a

1 HUD grant, but I do think that where the -- the HUD -- the
2 HUD grants are is great. I'm just wondering if the
3 limitation on grantees doing abatement is still there
4 because that was one of the things that we had here in
5 Indianapolis is when we had a grant we were not allowed to
6 do abatement and so we could do something, but it was not
7 permanent and I think it's really going to be hard to say
8 that there is a lead-free community when abatement, you
9 know, when -- when you had the help and abatement is not a
10 requirement. That's all I have. Thank you.

11 **MS. TELFER:** Thank you. Those are important points.
12 We have Wallace Chambers who has a comment or question.

13 **MR. CHAMBERS:** Yes. Karla actually said some of the
14 things I wanted to say, but I also had another question
15 about the selection of the communities, what's the
16 approach and also would there be a housing evaluation to
17 determine if the house should be considered or made
18 lead-free or should be rebuilt and just start a new house
19 and make it a more healthy home from that perspective
20 instead of putting a lot of money in just to remove the
21 lead. Thank you.

22 **MS. TELFER:** Okay. Dr. Buchanan or Dr. Breysse,
23 would either of you care to respond to that?

24 **DR. BUCHANAN:** Oh, I can talk a little bit about the
25 -- the approach in terms of selections of communities to

1 actually be a part of the -- the pilot and we're -- we're
2 talking about that now. A lot of that selection criteria
3 is based on the fact that there are communities out there
4 that have -- they are already trying to accomplish what
5 we're calling lead elimination.

6 They already have a plan and an eye toward this whole
7 concept. They've already sort of been in this space in
8 terms of collaborating with -- with multi-sectorial
9 partners. I know that in -- and I think they may talk
10 about this a little bit later on, that a number of
11 communities have been strapped, of course, because of
12 COVID in -- in terms of what they would have normally
13 done. But there's been some conversation about who these
14 -- these cities might be or who these communities might
15 be. And although we may select 30 communities to pilot,
16 that does not preclude us from going outside those --
17 those communities, as well. Where, I mean there --
18 there's not really any funding for -- for this, per se.
19 We're just thinking about initiatives that they already
20 have or interventions that they already have going on and
21 how we can sort of leverage those and compliment those and
22 it was a very thing, I think it was Karla that -- that
23 mentioned that there are some limitations with federal
24 dollars.

25 And so that is the need to -- to really -- impetus

1 for -- for going outside of the -- the federal funding, so
2 to speak, where we can get the money for, if it's
3 abatement that's needed to be done, then the resources
4 would be there. Where can we find those resources to make
5 sure that we're completing what we need to complete and
6 doing what we need to do to really make a difference.

7 **DR. BREYSSE:** If I can just touch real quick on
8 another aspect of Wallace's comment and, you know, we
9 recognize that if you're stuck talking about homes and
10 home environments, you know, it doesn't make sense to do
11 one thing at a time, and so having a broader, you know,
12 sense of what a healthy home is like is certainly part of
13 -- of how we would like to proceed and certainly is an
14 approach that we think is appropriate going forward.

15 While we're just talking about lead here, we don't
16 want to ignore the broader issue of -- of what a healthy
17 house is like and what healthy housing is like and -- and
18 of course, when you start talking about healthy housing,
19 you have to start talking about healthy places, you have
20 to start in the healthy places. You can see how having an
21 integrated approach to environmental health which
22 integrates all these things is -- is an important thing
23 and -- and is really the way to go. So we -- we recognize
24 that and -- and if we focus on lead at this meeting, we do
25 that because, you know, we're talking about our lead

1 program, per se. But I -- we don't mean to imply that we
2 don't acknowledge that broader focus on healthy housing,
3 and healthy places also are -- are important.

4 **MS. TELFER:** Thank you all. We have a couple of more
5 people who would like to participate. Jeanne Briskin,
6 we'll go first to you.

7 **MS. BRISKIN:** Thanks. So I think eliminating
8 exposure to lead is really important, but often mitigating
9 those exposures depends on secondary information.
10 Basically we're looking at finding kids with elevated
11 blood lead levels and then following up, rather than the
12 primary prevention strategy that I think that this
13 initiative would endorse. So just the idea that finding
14 different ways to figure out where the lead needs to be
15 eliminated from, other than surveilling children who are
16 already exposed, I think is -- is a research area need
17 that we can talk about, for example, during our section on
18 research. Thanks.

19 **MS. TELFER:** Super. Thank you. Identifying places
20 that -- that we need to go is essential. Nathan Gruber --
21 or Gruber -- I apologize, moving to you, please.

22 **DR. GRABER:** Yeah. So I -- I've said it, you know,
23 plenty of times before that primary prevention is really
24 the way to go and not using our children as measures of
25 problems in the environment which is the -- the way that

1 we traditionally sought out lead hazards and places to
2 look for lead hazards. I guess, you know, this is really
3 an incredible program and it sounds like it's -- it's a
4 wonderful initiative and talking -- Pat Breysse speaking
5 about expanding that to more of a Healthy Homes approach
6 is certainly a -- an added benefit, and some places have
7 done that. And I guess a couple of questions that I have
8 or things that you should consider as you develop the
9 program are the challenges with one accessing homes, which
10 is where children spend the majority of their time, so
11 focusing both primary prevention in the homes themselves
12 and not just the -- the local outdoor environment. How
13 would you overcome that issue? I know that the Healthy
14 Homes programs that operate in some of the states have
15 been working on that for a number of years.

16 And then, I guess, the other -- the other question
17 which I don't know if federal grantees are entirely
18 hindered by this, but the limitations on working with
19 local elected officials to -- and local regulatory
20 agencies -- to develop the statutes and regulations, as
21 well as the enforcement programs to follow through on lead
22 hazards and other hazards in the home once they're
23 identified.

24 **MS. TELFER:** Thank you. I'll turn to Dr. Buchanan
25 for a response.

1 **DR. BUCHANAN:** So -- so we -- we are considering that
2 in our deliberations. I think what we want to do is sort
3 of focus on that and have more conversation as we convene
4 the -- the members of the collaborative to really sort of
5 give us some feedback and some thought on how we can
6 address that. But I appreciate that and -- and yeah that
7 is a sticking point how -- how actually to do that.

8 **DR. BREYSSE:** Thank you, Nathan. I think you -- you
9 illustrate some of the many challenges and there -- there
10 are many more we could articulate about how to make this
11 work. So the whole notion is that we're trying to use
12 some -- invest some time now into figuring out what works
13 and what needs to be done to make it work and that would
14 include, you know, changes in regulations at the state
15 level, perhaps.

16 And so we will be exploring all these things and
17 there are probably multiple pathways to get stuff done
18 and, of course, getting into houses is an issue. You
19 know, there's owner occupied, there's rental units, you
20 know, so managing -- there's public housing, you know,
21 which -- which we probably have a better access to than
22 the private housing or the -- or the rental housing. But,
23 you know, those are all things that we need to sort out.
24 Those are all barriers to getting this done.
25 The need to identify and we need to -- we need to

1 systematically begin to address them. Now, I'll say
2 there's some -- there's some promising work ongoing that
3 we're going to take advantage of, you know, Sharunda
4 mentioned Flint, Michigan, Rochester, New York. There's a
5 number of places that are moving towards this and we'll be
6 looking to them as -- as -- as examples and -- and
7 exemplaries for kind of how to move stuff forward and so
8 we work with those communities going forward. We see, you
9 know, this will be a snowball effect. We want to get the
10 ball rolling. And -- and that's what we want to work on.
11 And if I can just comment a little bit on Howard.

12 So Howard, you're absolutely right and there's this
13 -- there's been this notion of lead safe housing which has
14 been with us for a long time and we don't want to abandon
15 it. We have to keep trying to keep the houses lead safe.
16 But I would argue that as we move towards eliminating the
17 lead, you know, that's the role. So we want to keep the
18 houses safe and we want to keep as we move towards lead
19 elimination, now, I know that lead elimination as Sharunda
20 said does not mean there's never any lead.

21 So that's why I'm very careful when I articulate this
22 that we want to eliminate the hazardous sources of lead in
23 children. So we want to figure out where the lead's
24 coming from and what can we do to eliminate that. And
25 you're absolutely right, it's not just the house. It's

1 the soil outside the house, it's the water that comes into
2 your house, in some cases it's the air you breathe and all
3 those need to be considered as -- as part of this package
4 in moving towards that.

5 And I'll also touch on -- on -- on some other
6 comments people made. We have to keep doing kind of what
7 we're doing now. We have to make sure that we still care
8 for kids that are lead poisoned. We have to make sure
9 that we continue to identify kids with elevated blood lead
10 levels as we move towards this lead-free future. This all
11 has to be done to make sure that A, we know that there's
12 lots of examples in environmental health where -- where
13 good intentions lead to bad things.

14 And -- and we can be aggressive at eliminating lead
15 and in the process, we may be making the lead exposure
16 worse over a short period of time. So having programs in
17 place needed to monitor blood lead, to use those blood
18 lead testing to identify high-risk areas to be -- to be --
19 help identify areas that are -- are primary focus for lead
20 elimination effort is all part of that big picture. So
21 we're not -- we're not -- we're not going to abandon this
22 healthy housing, we're not going to abandon the approach
23 we had was -- was secondary prevention as we move towards
24 this brighter future. We see, you know, a -- this is
25 really a time to re-envision this problem and to really

1 work towards eliminating as a source of lead-free
2 children's environments.

3 And that doesn't mean abandoning all these other
4 things and so I -- I think the time is right for -- for
5 the environmental health community to get behind this
6 effort. Think big and make it happen. Lead safe is fine
7 but recognize a lead safe house today, ten years from now
8 could not be a lead safe house so the lead safe program
9 will continue -- will require a perpetual management
10 problem for the lead in the environment going forward that
11 will never go away. It's time to make it go away, at
12 least that's my perspective. So I'll just stop there.

13 **MS. TELFER:** Thank you, Pat. We are a bit ahead of
14 schedule so if anyone else has a question or comment, we
15 have some time for that.

16 **DR. BREYSSE:** And I -- I'd be interested in your, you
17 know, your broader thoughts about -- about this approach
18 and -- and -- and things. I've hear some -- I've heard
19 some, you know, people who are seconding that this is the
20 way that we should be moving and if other people feel that
21 way, we -- we'd be interested in kind of hearing that.

22 **DR. MIELKE:** I don't have a button on my computer to
23 -- for hand raising. This is Howard Mielke.

24 **MS. TELFER:** Yes, sir.

25 **DR. MIELKE:** I wanted to just comment that the focus

1 on the individual house is what we were doing in New
2 Orleans and then we started mapping the outside
3 environment which can be easily done without interfering
4 at all with -- we don't have to grab a child and poke
5 their vein or their finger to get blood lead. Soils are
6 very easy to collect and they don't provide -- they don't
7 give you any problem. And when we started looking at the
8 community is when we started realizing that the community
9 exposures can be easily mapped and that the blood lead
10 does relate very closely to what you find in the community
11 and we have written about this. I did send some articles
12 on that topic and it's -- might be one way in which we can
13 capture the idea of improving the entire city towards a
14 lead safer and lead-freer situation than it is right now.
15 Thank you.

16 **MS. TELFER:** Thank you.

17 **DR. BREYSSE:** I -- I agree with you, Howard. Those
18 are -- those are good points. And, in fact, maybe during
19 another meeting we can talk about some of the works we're
20 doing to develop, lead hazardous indexes in cities and
21 incorporate things like that to help us focus our efforts
22 going forward. So we're -- we're -- we're aware of that
23 work and -- and we're looking to build on it. So take
24 care.

25 **MS. TELFER:** Thank you both. Let's turn back to

1 Jeanne Briskin, if we may.

2 **MS. BRISKIN:** Thank you. So one thing that we'd be -
3 - at EPA would be interested in understanding is how you
4 envision the engagement of other federal agencies in this
5 initiative, such as HUD and EPA. Thank you.

6 **MS. TELFER:** Okay. We turn to either Sharunda or Pat
7 to respond to that.

8 **DR. BUCHANAN:** So Sharunda can talk a little bit
9 about it. And Jeanne you -- you're probably aware and
10 this is probably for everybody else's awareness is that as
11 we began to develop the Federal Lead Action Plan where all
12 the federal agencies came together to -- to think about
13 what we could do individually, yet collectively, in this
14 arena. And we have a goal for -- which is a research goal
15 and there's already been some discussions with some of the
16 folks under both EPA, HUD and others under that goal for
17 research about how we can collaboratively come together to
18 think about, as we just talked about earlier, sort of
19 thinking -- coming together in one particular city.

20 Inviting them to the table as we are inviting SMEs to
21 react to our working draft definition. Inviting them to
22 the table as we're talking about developing the model and
23 -- and thinking about what other kinds of partnerships
24 should we undertake outside of the federal government. So
25 we've already had some discussions or we began discussions

1 meaning that we -- we haven't finalized anything. But we
2 definitely would like them to be a part of our collection
3 of subject matter experts and bringing them to the table
4 to also help us think about this. And also help us to
5 socialize this.

6 **DR. BREYSSE:** So Jeanne if I could jump into that,
7 you know, it's crucial the point you raised and so we're
8 doing a couple of things. But one is we're talking about
9 it here today so many of you might not be aware that this
10 -- this is in some ways a unique federal advisory
11 committee. Because of the congressional mandate, we have
12 federal partners on the committee. In the -- in the more
13 typical arrangement we have a federal advisory committee
14 which is composed of outside experts and federal partners
15 play a liaison role. And -- and they're not members of
16 the committee. But this is different and so being part of
17 the committee, you know, that gives you, I think, a
18 different voice in terms of the input you give us in terms
19 of what we do. So that's number one.

20 Number two, we do have the Federal Action Plan, and I
21 don't see the Federal Action Plan as something that's set
22 in stone. That's something that's going to evolve over
23 time. And as we work towards creating what this vision
24 would look like, as we get more practical and we figure
25 out what the real steps are going forward, we hope to re-

1 engage the federal agencies that participated in
2 developing the Federal Action Plan and maybe have that
3 evolve. So the plan we have right now I see as a first
4 step. And then as -- as we move this concept forward, as
5 we demonstrate what works, what doesn't work, as we
6 identified barriers, we will turn to the federal
7 government to be the drivers behind this and we will reach
8 out to the Federal Action Plan hopefully to begin to force
9 this forward. So I think we've already talked about this,
10 you know, with the groups that -- that participated in the
11 Federal Action Plan development, and -- and as Matt said,
12 and this wasn't part of the envision of the -- the first
13 version of that plan, but you know that's -- that's not
14 the last version is what I'll say.

15 **MS. TELFER:** Thank you. Now let's turn to Matthew
16 Ammon if we can.

17 **MR. AMMON:** I just wanted to follow up from what
18 Dr. Breysse was saying, also what Jeanne was saying. You
19 know one of the critical support -- one of the critical
20 support items that really helped move a lot of where we
21 are today is when we had the President's Task Force do the
22 ten-year plan, you know, quite some time ago. You know,
23 Jeanne brought this up too and so did Dr. Breysse about
24 the -- the need for all these agencies to come together.

25 One of the most critical things that we did was have

1 a common set of goals within each of our budgets. They
2 were very, very similar and very aligned. And that
3 certainly had the signature message that all of us were on
4 the same page, driving toward the same goals and really
5 working in unison. And I think a lot of that has really
6 dropped off over the last couple of years where what we
7 have in terms of our congressional budgets and things of
8 that nature are very different now. And I think this, you
9 know, these efforts can be a real signature piece to
10 getting us back in harmony with really moving collectively
11 with a common set of goals and initiatives, again, to help
12 continue with our progress that we've made over the last,
13 you know, 20 years.

14 **MS. TELFER:** Thank you. With such diversity in
15 mission and purpose amongst our federal agencies that's an
16 important insight that may benefit us for staying away --
17 or staying on track. We have about three minutes left
18 that we can dedicate to this topic so if you haven't yet
19 asked a question or wish to make a comment, now's your
20 opportunity.

21 Okay. Seeing no hands or no texts, let me
22 metaphorically hand the microphone back to Perri Ruckart.

23 **MS. RUCKART:** Okay. Thank you, Jana. Thank you to
24 Sharunda and all the participants. That was a really
25 engaging discussion.

1 **COVID-19 AND CDC LEAD SURVEILLANCE**

2 **MS. RUCKART:** And next I'd like to present
3 Dr. Kathryn Egan. She's an epidemiologist in our Lead
4 Poisoning Prevention and Surveillance Branch, and she's
5 going to discuss COVID-19 and CDC lead surveillance. I'll
6 turn it over to you Katie and also if you'd like to say
7 any more in the way of an introduction, please go ahead.
8 Thank you.

9 **DR. EGAN:** All right. Good morning, can you hear me?

10 **MS. RUCKART:** Yes.

11 **DR. EGAN:** Great. Okay. So yeah, my name is Katie
12 Egan. I am an epidemiologist with the Childhood Lead
13 Poisoning Prevention Program at CDC. I'm presenting today
14 on behalf of Dr. Joseph Courtney and we are presenting
15 work from an MMWR that we are hoping to publish and the
16 title is, Decline in Blood Lead Testing in Young Children
17 Following the Onset of the COVID-19 Pandemic.

18 Next slide. So what is lead poisoning? There is no
19 safe level of blood lead that's been identified for
20 children. Many factors affect how the body handles
21 foreign substances such as lead exposure. These include
22 the source of the exposure, the length of the exposure,
23 the child's age, their nutritional status, and potentially
24 their genetics. A blood test measures the level of lead
25 in the blood which can indicate exposure.

1 Next slide. All right. So how does lead affect
2 children's health? Lead exposure in children can cause
3 damage to the brain, the nervous system, learning and
4 behavior problems, slow growth and development and hearing
5 and speech problems. Even low levels of blood lead have
6 been shown to affect a child's IQ, ability to concentrate
7 and their academic achievement.

8 Next slide. There are a number of sources of lead
9 exposure for children. In the United States today
10 deteriorating lead-based paint and lead contaminated dust
11 in older homes and buildings are the most highly
12 concentrated and significant sources of lead exposure
13 among children. Lead-based paint accounts for up to
14 70 percent of elevated childhood blood lead levels.
15 Lead-based paints were banned in 1978, but generally older
16 homes have some lead content in their paint. Lead dust
17 and paint chip hazards can arise from the following:
18 friction between interior surfaces such as doorframes and
19 window sills, home renovations that disturb lead paint,
20 transport from outdoor sources such as soil and exterior
21 paint, -- oh, and transport. Lead can be transferred from
22 surfaces to hand and ingested by young children from their
23 normal hand-to-mouth activity.

24 Next slide. Less common sources of lead exposure
25 include occupational take-home exposure. Workers can

1 inadvertently transport hazardous materials into their
2 vehicles and homes on their clothes, tools, hair, skin,
3 etc., creating an exposure hazard for their children and
4 other children who spend time around them.

5 Lead contaminated water. Measures taken during the
6 last two decades have greatly reduced exposures to lead in
7 tap water. These measures include actions taken under the
8 requirements of the 1986 and 1996 amendments to the Safe
9 Drinking Water Act and the EPA's Lead and Copper Rule.
10 Even so lead can still be found in some metal water taps,
11 interior water pipes, or pipes connecting the house to the
12 main water pipe in the street. Lead found in tap water
13 usually comes from the corrosion of older fixtures or from
14 the solder that connects pipes. When water sits in leaded
15 pipes for several hours, lead can leach into the water
16 supply. Another source is traditional folk medicines and
17 cosmetics. Lead has been found in some traditional
18 medicines used by Indian, Middle Eastern, West Asian and
19 Hispanic cultures.

20 Imported candy and candy wrappers. The potential for
21 children to be exposed to lead from candy imported from
22 Mexico prompted the U.S. FDA to issue warnings on the
23 availability of lead contaminated candy and to develop
24 tighter guidelines for manufacturers, importers and
25 distributors of the imported candy. Certain candy

1 ingredients such as chili powder and tamarind may be the
2 source of lead exposure. Lead sometimes gets into the
3 candy when processes such as drying or storing and
4 grinding the ingredients are done improperly. Also lead
5 has been found in the wrappers of some imported candies.
6 The ink from the plastic or paper wrappers may contain
7 lead that leaches into the candy. Other sources of lead
8 exposure include imported spices, some imported toys, some
9 herbal remedies and cookware from international
10 manufacturers.

11 Next slide. Children are at greatest risk of adverse
12 health effects due to lead exposure. Why is this? It's
13 because children have unique behavioral factors such as
14 mouthing and crawling that adults typically do not have.
15 Children still have developing body systems and
16 detoxification processes and children absorb more lead per
17 body size than adults do.

18 Next slide. Why do we test children for lead? We
19 test them as lead can permanently impair cognitive
20 abilities and cause other health effects yet a child may
21 not show evident symptoms. The identification of a child
22 with high blood lead levels prompts a public health
23 response. This response can include a home nursing visit,
24 an environmental investigation to identify lead sources,
25 and chelation therapy if blood lead levels are greater

1 than or equal to 45 micrograms per deciliter or if
2 chelation is recommended by a physician. Early
3 intervention is important for reducing additional
4 exposures. Children and their families can be linked to
5 other services that can help mitigate the effects of their
6 lead exposure. And finally, blood lead surveillance data
7 can identify high-risk groups and areas for health
8 departments and providers to focus on.

9 Next slide. What is CDC's role in preventing lead
10 exposure and poisoning? The Lead Contamination Control
11 Act of 1988 authorized the CDC to initiate program efforts
12 to eliminate childhood lead poisoning in the United
13 States. The CDC Childhood Lead Poisoning Prevention
14 Program was created as a result of this act. The CDC
15 CLPPP vision is to eliminate childhood lead poisoning as a
16 public health problem. Our mission is based on the
17 Healthy People 2020 goals of reducing blood lead levels in
18 children and differences in risks based on race and social
19 class. Our key strategies are to strengthen blood lead
20 testing and reporting, strengthen surveillance, strengthen
21 linkages of lead exposed children to recommended services
22 and strengthen targeted population-based interventions.

23 Next slide. As we all know 2020 has been a
24 challenging year on many fronts. One of these challenges
25 is the COVID-19 pandemic. The COVID -- the 2020 COVID-19

1 pandemic rough timeline is as follows: So on January 9th
2 the WHO announced that there was a novel coronavirus
3 outbreak in Wuhan, China. On January 21st, we had our
4 first U.S. confirmed case. On January 31st the WHO
5 declared a global health emergency. Starting in February,
6 on February 3rd the U.S. declared a public health
7 emergency. Skipping forward a little bit to March, the
8 WHO declared a COVID-19 a pandemic on March 11th. On the
9 13th, the U.S. declared COVID-19 a national emergency.
10 And on March 19th California became the first state to
11 issue stay-at-home orders. There are potential effects of
12 the pandemic on primary care and in-person services. They
13 include that in-person services have declined. Some
14 primary care providers closed or had restricted services
15 and hours. Some shifted to telemedicine. Vaccination
16 rates among children decreased and this all led to a
17 concern that some children may be missing other essential
18 healthcare and assessments such as their blood lead
19 screening tests.

20 Next slide. If children, and especially young
21 children, were missing their routine pediatric visits, we
22 hypothesize that blood lead tests were also affected. In
23 order to investigate this question, CDC used state
24 surveillance data from January to May, 2020, and compared
25 that data to January to May of 2019. We focused on

1 children younger than the age of six years. The tests
2 counted were the number of unique children tested, not the
3 number of lab results as that some children may have had
4 multiple lab tests. We received data from 34 of our
5 funded Childhood Lead Poisoning Prevention Programs. This
6 included 32 states plus Washington D.C. and New York City.

7 Next slide. So after asking for all of this data
8 from 2019 and 2020, what did we find?

9 Next slide. The bar graph shows the number of
10 children tested for lead as reported by these 34 programs.
11 In 2019, 250,000 to 300,000 unique children's lab tests
12 were reported. In 2020, this number varied widely over
13 the five months. It also differed substantially from 2019
14 counts at times. In January, those first set of bars,
15 there was a half a percent decline in testing between
16 January, 2019 and January, 2020, that's right as the
17 pandemic began. Comparing February, 2020 and February,
18 2019, there was a 6.3 percent decline. Looking forward to
19 March, there was a 39.4 percent decline between 2019 and
20 2020 testing rates. This dropped to the high of 66.5
21 percent in April. Counts rebounded slightly in May, but
22 there was still a 51.1 percent decrease in testing when
23 comparing May, 2019 to May, 2020.

24 Next slide. Declines in blood lead testing varied by
25 jurisdiction. Different states did different stay-at-home

1 orders and had different responses. All jurisdictions had
2 at least a 40 percent decline between 2019 and 2020. The
3 following jurisdictions had decreases in April of more
4 than 75 percent. This included Delaware, Washington D.C.,
5 Maryland, Missouri, New York City, Rhode Island and
6 Wisconsin. Maine, Oregon and Tennessee had the smallest
7 declines in the number of children tested.

8 Next slide. There are other consequences of the
9 pandemic on blood lead testing and surveillance. There
10 have been difficulties in conducting home nursing visits
11 and environmental investigations for children with lead
12 toxicity, due to staffing shortages. Health departments
13 have had to develop methods of performing investigation
14 under pandemic conditions. Jurisdictions have had trouble
15 locating lead poisoned children as many families were no
16 longer in their listed residence, and many children may be
17 spending more time in contaminated environments due to
18 shelter in place and school closures.

19 Next slide. Some factors of our assessment to
20 consider and keep in mind. First, these are -- results
21 are based on preliminary data. The data were only
22 collected for January through May of each year. Some
23 clinical labs may have had staffing shortages and work
24 diverted due to the COVID-19 pandemic which reduces their
25 blood lead testing capacity and slows reporting of results

1 to health departments. And health departments have also
2 experienced staff shortages and staff reassignment to
3 COVID-19 work which can affect the processing of blood
4 lead surveillance data.

5 Next slide. To summarize, our key findings are that
6 there was a sharp decline in the number of children tested
7 in early 2020 compared with the same period of 2019.
8 Overall, we saw a 34 percent drop for the first five
9 months of 2020 in comparison to 2019. The largest decline
10 was 66 percent in April. The extent of this decline
11 varied by state, and this assessment showed that nearly
12 half a million children in reporting -- in the
13 34 reporting jurisdictions, appeared to have missed their
14 lead screenings in the first five months of 2020. There
15 were some signs of recovery in May but as we did not
16 collect data past May, we are not able to assess if this
17 small recovery continued throughout the summer months.

18 Next slide. So what are the implications? First,
19 potentially thousands of children with higher blood lead
20 levels may have been missed, which delays their access to
21 care and services. Second, health departments may have
22 had trouble conducting lead poisoning care management and
23 environmental investigations, and catching up to previous
24 volumes will be very challenging. Third, this highlights
25 the importance of assuring that children who missed their

1 scheduled screening tests or who required follow-up on a
2 prior high blood lead level be tested as soon as possible.
3 Agencies serving young children should coordinate outreach
4 to ensure that the well-child visits, immunizations and
5 other essential services occur.

6 Next slide. Both the American Academy of Pediatrics
7 and CDC have issued statements during the pandemic. The
8 American Academy of Pediatrics' *Guidance on Providing*
9 *Pediatric Well-Care during COVID-19* states that all well-
10 child care visits should occur in person whenever possible
11 and within the child's medical home where continuity of
12 care may be established.

13 Next slide. CDC information for providers suggests
14 that they should identify children who have missed well-
15 child visits or recommended vaccinations and contact them
16 to schedule in-person appointments. They should
17 prioritize infants, children under the age of 24 months
18 and school-aged children. Developmental surveillance and
19 early childhood screenings, including developmental and
20 autism screenings, should continue along with referrals
21 for early intervention services and further evaluation if
22 concerns are identified.

23 Next slide. So what are the next steps? We are in
24 the process of writing an MMWR publication relevant to the
25 information shared today. We may also perform additional

1 analyses to better understand the timing, geography and
2 demographics of where declines have occurred and to
3 identify and target the children who may have been missed
4 during this year. We will continue to work with health
5 departments and local health associations to develop and
6 implement strategies for delivering lead poisoning
7 prevention services during the pandemic.

8 Next slide. For more information on lead poisoning
9 prevention please see our website; it's listed right
10 there, as well as the email address: lppp@cdc.gov.

11 Next slide. And for questions regarding COVID, you
12 can visit that website which is also listed on the slide.
13 Thank you very much.

14 **MS. RUCKART:** Thank you, Katie, for that very
15 relevant presentation. I will now turn it over to Jana to
16 lead the discussion portion. Thank you.

17 **MS. TELFER:** All right. Just a reminder that if you
18 have the ability to raise your hand, either using what's
19 on your computer or *9 if you have dialed in by phone,
20 please do so, and you can also message me through the chat
21 function if you would rather do that. Okay. Dr. Mielke,
22 hand is up.

23 **DR. MIELKE:** Can you hear me okay?

24 **MS. TELFER:** Yes, sir.

25 **DR. MIELKE:** Yes. I -- I really appreciate what

1 you're saying. In pharmacology we've been thinking a lot
2 about the impact that lead may have on COVID-19. And what
3 we've realized is that one of the major issues -- systems
4 issue concerns the lymph system and the endocrine system.
5 Lead has a very strong impact on those two systems, the
6 tendency to weaken the endocrine system, and this seems to
7 be part of the basis for what we're seeing in New Orleans
8 is a very high death rate among African Americans.

9 When we look at the data in terms of communities
10 across the whole metropolitan area, the communities that
11 have the highest percentage of African Americans is also
12 the same communities where we see the highest blood lead
13 levels in childhood. And we imagine that over time as
14 these children -- as they develop into adulthood are much
15 more vulnerable to COVID-19 than the population that is
16 not highly exposed during childhood. Have you considered
17 looking at COVID-19 in this way?

18 **MS. TELFER:** Katie, do you want to respond to that?

19 **DR. EGAN:** Sure. I would just say I think that's a
20 great point. At this point we don't have the data to do
21 that, but it's a very interesting point and it's
22 definitely something I would love to look into some day.

23 **DR. MIELKE:** I can send you our data.

24 **DR. BREYSSE:** Please do. We'd be happy to share it
25 with the -- the coronavirus response team.

1 **MS. TELFER:** Thank you. We have several hands up so
2 we will go first to Donna Johnson-Bailey.

3 **MS. JOHNSON-BAILEY:** I -- I certainly appreciated
4 that presentation, and I do want to emphasize that WIC is
5 one example of an intervention that seeks to improve the
6 conditions of young children by integrating referrals for
7 screening services and monitoring blood levels for those
8 most at risk for exposure to lead. Perhaps Medicaid is
9 the only other federally funded health intervention to
10 adopt such a large targeted screening and monitoring
11 approach.

12 Also relevant is to address the -- the public health
13 emergency. The WIC program provided flexibilities that
14 temporarily suspended in-person requirements for
15 certification and recertification for the program and
16 deferred certain medical tests used to determine
17 nutritional risk as permitted by the Families First
18 Coronavirus Response Act. So many of the in-person
19 requirements that encourage health screening and are
20 supported by communities in identifying lead exposure were
21 unfortunately suspended. So while the vision for how
22 programs may operate in the near future is unclear, I
23 think it may be beneficial to consider programs such as
24 WIC in evaluating the impact of the coronavirus for this
25 MWW -- MMWR.

1 **MS. TELFER:** Thank you very much. Any response or
2 comment from our presenters? And if not, we'll move to
3 Nathan Graber, please. Remember to unmute.

4 **DR. GRABER:** Yeah, it just took me a second to find
5 the button. And so -- so -- so I think it was a great
6 presentation and certainly something that we suspected was
7 going on and I know that the health departments have
8 reported a decline in testing. But I believe that at this
9 point there's been a rebound in historical levels of
10 testing in my practice and, of course, the practice of
11 many of my colleagues. We made a concerted effort to get
12 our patients back into the office for their well-child
13 visits and we kept ourselves available as -- as for -- for
14 other needs that the families had, as well. And, you
15 know, many of those we were able to do through telehealth,
16 but certainly giving vaccinations is not something that we
17 can do any other way.

18 So one of the big driving forces for making sure that
19 we had all of our patients back in the office was the
20 immunization requirements for schools and for daycares.
21 And with that requirement in place, we were able to get
22 our patients and their families in and, of course, get our
23 lead testing done. We know that we're most effective in
24 getting lead screening done if it's -- if it's performed
25 in the office, which is why we use a LeadCare II. Some of

1 my colleagues have phlebotomists who come to the office
2 and actually draw those lead levels. And as a result, I
3 think you are definitely going to see a rebound in the
4 testing rates probably to historic levels. And we're
5 certainly going to keep pushing forward into the future on
6 this model of making sure that we get our patients in the
7 office.

8 We know how to keep our patients from being exposed
9 to COVID-19 in our practices. That being said, we really
10 believe that the COVID-19 pandemic is going to have long-
11 lasting impacts on provision of services in the home and
12 we've already seen a waiver here in New York where
13 children who are learning at home don't have to get their
14 vaccines and meet the same requirements as kids who attend
15 in purpose -- who attend in person. So -- so with those,
16 I guess there's a couple of things that I -- I have that
17 come -- a couple of questions that come to mind.

18 One is, you know, did the increased time spent at
19 home, we know -- we know kids spend a majority of their
20 time indoors probably much, much more than we would like
21 them to. And -- but the COVID-19 pandemic is forcing them
22 to spend a lot more time, not just indoors, but in their
23 own homes. Did -- and we know that most kids are exposed
24 to the deteriorating lead-based paint in their own homes.
25 I'm -- the question, I guess, going forward when you look

1 at the levels in the future, is -- is that going to have
2 an impact on the average blood lead levels of children,
3 that one factor.

4 And then, I guess, the other question is, the delays
5 in services such as the health department coming into the
6 home to educate the family and identify lead hazards and
7 have them mitigated -- or remediated. Is that leading to
8 a prolongation of exposures and is, you know, the proxy
9 being a longer time to see a decline in the blood lead
10 levels below those that indicate an ongoing exposure. And
11 we can talk for quite some time about what that means in
12 terms of -- of health impacts, whether it's those windows
13 of vulnerability, those periods of time that are specific
14 to leading to long-term health impacts or if it goes to
15 long exposures that increase risks for certain health
16 outcomes.

17 So -- so I'd be really interested to see you analyze
18 the data to look at that factor as well because we know
19 that in the long run there's still going to be an impact
20 on -- on home delivered services. And then something that
21 really drives us to make sure that we stay on top of some
22 of the -- on top of preventative services is the pressure
23 put on us by health insurers and I'm wondering if the --
24 any dialogue going forward to have health insurers put a
25 little pressure on providers, that includes Medicaid, to

1 make sure that we're meeting our requirements for testing
2 for lead and it's a real strong driver for us.

3 Plus, I know here in New York State our local health
4 departments have also reached out to us and provided us
5 with feedback on our own patients in regards to the need
6 for follow-up testing and, of course, testing going
7 forward. So I'll stop there. I could talk for a long
8 time, but I'll stop there.

9 **MS. TELFER:** Super. Thank you very much. Those are
10 all enormously thought-provoking questions. However, in
11 the interest of time because we have about four minutes
12 left, what I'd like to do first is to turn to --

13 **DR. BREYSSE:** Jana, can I just say really quick that
14 I think those are great ideas, Nathan, and we'll look into
15 any -- any additional analyses we can do to address some
16 of those issues about, you know, rebound and -- and the
17 absolute change of blood lead values might represent
18 additional exposures. So those are great and we'll follow
19 up. Thanks.

20 **MS. TELFER:** Thanks, Pat. I did want to turn to
21 Jeanne Briskin to be sure that we get all of the members'
22 questions and comments into the record. So Jeanne,
23 please.

24 **MS. BRISKIN:** Thanks very much. The food was listed
25 as a remaining critical source of exposure, so I just

1 wanted to point out that it's important for FDA and USDA
2 to include culturally relevant or heritage diets in their
3 market basket and total dietary survey so that we continue
4 to have that information for interventions and for
5 modeling and other methods to determine source
6 attribution. So I'm wondering whether CDC is already
7 working with FDA and USDA to ensure that the culturally
8 relevant and heritage diets can be included in an updated
9 market basket and total dietary survey?

10 **MS. TELFER:** Thank you. Let me turn to Kathryn Egan
11 first to see if -- you have four questions and you may
12 select which one you would like to respond to.

13 **DR. EGAN:** I do not personally know the answer to the
14 FDA question, but that does not mean that someone in my
15 branch doesn't.

16 **CDR LEONARD:** Hi this is Monica. Hi, Katie --

17 **DR. EGAN:** Yeah.

18 **CDR LEONARD:** -- you can chime in. I wanted to say
19 that we have started such measures in the -- in the past;
20 however, we do look to regain and to look into that
21 further. So thank you for bringing that up to us. Thank
22 you. I'm sorry, Katie, you were going to continue?

23 **DR. EGAN:** Oh, no. My only other question -- my
24 response was to the question that was asked a couple of
25 minutes ago about increased spent -- time spent at home

1 and indoors and if this is going to impact blood lead
2 levels in the future. I think that's very important and
3 very relevant. Our surveillance data comes in quarterly.
4 There's about a three- to six-month lag time on the data
5 getting it to us, but that is something that I think in
6 the next year, two years, as we come out of this pandemic
7 that it's very important to look into.

8 **MS. TELFER:** Thank you very much. I would be remiss
9 if I didn't link one of the comments made in this section
10 to one made previously, and that is that Dr. Mielke
11 mentioned the potential link between prior lead poisoning
12 and -- or lead exposure and its emphasis on our bodily
13 systems and the correlation with higher death rate from
14 COVID-19. And in the early session Karla Johnson did
15 signal a -- a challenge in the fact that we have
16 nationally a lack of services for people who age out of
17 the child category. So with that let me, again, hand the
18 microphone back to Perri.

19 **MS. RUCKART:** Okay. Thank you, Jana. And thank you
20 so much to Katie for giving that presentation and to Joe
21 who is the primary author. So that was a really great
22 discussion, lots of good ideas generated from that, but
23 now I'd like to move on to our next presentation.

24 **NCEH LAB ACTIVITIES**

25 **MS. RUCKART:** It's about NCEH lab activities and our

1 presenter is Dr. Robert Jones. He's the Chief of the
2 Inorganic and Radiation Analytical Toxicology Branch in
3 the NCEH laboratory. So I will turn it over to you,
4 Robert, and if you'd like to say anything else to
5 introduce yourself, please go ahead. Thank you.

6 **DR. JONES:** So this is Robert Jones. As Chief of the
7 Inorganic and Radiation Analytical Toxicology Branch, our
8 branch is responsible for the management of trace toxic
9 and essential metals and metal species and radionuclides
10 in people in various public health studies and national
11 surveys. So I'd like to first thank my co-authors: Dr.
12 Jim Pirkle, who's our division director; Mr. Jeff Jarrett,
13 who is the chief of the elemental analysis laboratory
14 whose group he leads -- that generates all this blood lead
15 data and quite a bit of other metals data; Dr. Po-Yung
16 Cheng, who helped with the generating the statistics for
17 this presentation, he worked extensively with Mr. Jarrett,
18 as well. And Dr. Matt Karwowski, who is our chief medical
19 officer.

20 Next slide, please. I'd like to -- since a lot of
21 the LEPAC members are maybe not familiar with our division
22 as part of the NCEH. So our division of laboratory
23 sciences is one of the divisions in NCEH. We have two
24 state-of-the-art buildings with about 400 employees of
25 which we have about 250 FTEs, 108 PhDs and 7 MDs and

1 probably some of the most advanced analytical
2 instrumentation in the world as far as clinical analysis
3 is concerned.

4 Next slide, please. So we're involved with a number
5 of program areas. We have a national biomonitoring
6 program which we're heavily involved in. We have
7 capabilities for emergency response in the chemical and
8 radiation areas. We're involved with tobacco and smoking
9 addiction issues, newborn screening, nutrition, a few
10 selected chronic diseases, as well as selected infectious
11 diseases.

12 Next slide, please. Now, we -- our division can now
13 measure over 500 different environmental chemicals and
14 radionuclides in people. That's quite a leap forward from
15 when I joined CDC decades ago. It's due to that advanced
16 analytical instrumentation and some of the method
17 development we've had over the past three decades. So we
18 are involved with quite a number of human exposure and
19 health effects studies, usually about 60 to 70 of those
20 per year across a wide variety of different environmental
21 chemicals.

22 We're also producing the *National Report on Human*
23 *Exposure to Environmental Chemicals*, and that's part of
24 the National Health and Nutrition Examination Survey, the
25 fourth report was December, 2009, a full report. We've

1 had updated tables ever since then about every year to two
2 years. The last one that came out in January, 2019, I
3 believe they're working on a new edition as we speak. And
4 those updated tables have all the data that we've compiled
5 that have been released by the National Center for Health
6 Statistics.

7 Next slide, please. So the National Health and
8 Nutrition Examination Study, which I'm sure most of you
9 are aware of, surveys about 9,000 people every two-year
10 period. And it's run in two-year cycles, always starts on
11 an odd cycle, and for most of these cycles since the
12 beginning in 2019 -- 1999, childhood blood lead is one of
13 the few analyzed that has all participants, all 5,000,
14 roughly 4,500 to 5,000 participants per year. So we have
15 a lot of good data on national survey for blood lead data
16 for people and especially children. And you can see the -
17 - in the bottom left the medical exam centers so that all
18 this data is collected in highly controlled conditions
19 which reduces contamination potentials and -- and other
20 interfering possibilities.

21 Next slide, please. So from a laboratory
22 perspective, I just wanted to mention, the rest of the
23 talk is going to be on how blood lead is primarily
24 measured in the clinical world by most laboratories.
25 First one is, ICP mass spec which is the inductively

1 coupled plasma mass spectrometry, graphite furnace atomic
2 absorption spectroscopy and LeadCare, there's various
3 versions of LeadCare, we'll talk about, it's a point-of-
4 care portable blood lead instrument which was actually
5 just mentioned a few minutes ago.

6 Next slide, please. Now on the LeadCare instrument
7 there was -- we found -- not we -- but it was found that
8 there is an interfering substance in some of the evacuated
9 tubes that the community uses that has a sulfur containing
10 compound in it that does interfere slightly with the blood
11 lead analysis by the LeadCare devices which will lead to a
12 slightly reduced analytical result.

13 So the FDA came out with a safety warning suggesting
14 that you don't use the LeadCare with venous blood samples.
15 Now finger stick samples, when you collect the finger
16 stick sample, in like one of these microtainers devices,
17 those devices do not have that rubber type O-ring so it's
18 not, as far as we know, it's not a problem with using the
19 LeadCare II. And there's the link for the actual safety
20 issue -- recall issue. And they're still doing work --
21 FDA is still doing work with the blood tube manufacturer
22 to see if this has any effect on other tests, as well as
23 if there's a way to eliminate that sulfur containing
24 compound. And we're also doing -- the FDA is working also
25 on some studies that we're involved in to look more

1 extensively at the finger stick capillary collection.

2 Next slide, please. So back in 2017, at the
3 NCEH/ATSDR Board of Scientific Counselors, the Lead
4 Poisoning Prevention Subcommittee basically asked our
5 laboratory to examine the implications of the level of
6 quantitation and precision of the primary methods to
7 determine blood lead for positive and negative predictive
8 value in a setting where the reference value might change
9 to 3.5 micrograms per deciliter. Now, that
10 positive/negative predictive value would be extremely hard
11 to do so we decided to approach it a different way by
12 looking at analytical precision down near 3.5 micrograms
13 per deciliter.

14 Next slide. So the primary questions are, for
15 sensitivity of these three methods, is 3.5 above the limit
16 of detection, and for precision of these methods is
17 precision adequate for clinical use? So those are the two
18 fundamental questions.

19 Next slide. Now, one thing that everyone has to
20 remember is that as one approaches the limit of detection,
21 which I will define in a moment, the analytical
22 uncertainty increases exponentially. So at the limit of
23 detection you have a 95 percent confidence interval is
24 roughly plus or minus 100 percent, not quite 100 percent
25 but almost, under analytical precision. That means if the

1 limit of detection is 2 micrograms per deciliter, then the
2 confidence interval for that is 0 to 4, that's what that
3 basically means, in whatever you define -- whatever you
4 find as your analytical method limit of detection, okay.

5 Next slide. So the limit of detection is the lowest
6 level which the magnitude of the measurement is greater
7 than the uncertainty of the measurement and at the limit
8 of detection the measurement of uncertainty is roughly
9 plus or minus 100 percent, okay. Now that level is a lot
10 of times confused with the limit of quantitation. Limit
11 of detection is empirically determined by experimentation
12 and then a statistical analysis. Limit of quantitation is
13 the lowest level the lab decided is quantitatively
14 meaningful, or a lower reporting level based on a policy
15 decision. So limit of detection is a statistically
16 determined -- experimentally determined number whereas the
17 limit of quantitation is really fundamentally a policy
18 decision.

19 So let me explain. So typically what you'll see with
20 a classical analytical chemistry limit of quantitation is
21 usually defined as roughly 3.3 times the limit of
22 detection which is 10 standard deviations from the error
23 because the limit of detection is roughly three times the
24 -- the standard error. But on the other hand, certain
25 agencies and sub agencies have different limits to the

1 quantitation. For example, the FDA, depending on what
2 they're measuring has a limit of quantitation which is
3 roughly three times the limit of detection and for other
4 measurements it's roughly 10 times the limit of detection.
5 So why would it be so much higher?

6 Well, remember that plot of uncertainty, as you get
7 further and further away from the limit of detection your
8 uncertainty drops significantly. So if the FDA is testing
9 say a million dollars' worth of apple juice coming into
10 this country, you wouldn't want to have a false positive
11 necessarily because that could cause that shipment of
12 apple juice to be rejected, so it is a policy decision.
13 So limits of detection for lab developed tests which are
14 all ICP mass spec and graphite furnace methods, those have
15 limits of detection which the laboratory determines
16 themselves. The limit -- the limits of detection for
17 manufactured valid tests are fixed for FDA cleared tests.
18 So the LeadCare I, II, LeadCare Ultra and LeadCare Plus,
19 those are defined by the FDA and CLIA rules so if -- if,
20 they're basically fixed. There's no variability whereas
21 the ICP mass spec and graphite furnace, I'll show you in a
22 second, are highly variable depending on what lab.

23 Next slide. So we look through the literature and
24 for a vast majority of -- of literature the published LOD
25 for ICP mass spec runs from .05 to 1.06, quite a wide

1 variety. For graphite furnace it's around .08 to 1.5,
2 okay. For the LeadCare II, again, that's an FDA cleared
3 device so it's fixed at 3.3 micrograms per deciliter. For
4 the LeadCare Ultra and the LeadCare Plus, it's fixed at
5 1.9 micrograms per deciliter.

6 Now some of you all might be wondering why are there
7 two different limits of detection for three different
8 technologies which use essentially exactly the same
9 equipment, electronics, electrodes, etc. Well, the
10 difference is the LeadCare II by FDA procedures and
11 regulations is determined by non-laboratorians whereas the
12 LeadCare Ultra and the LeadCare Plus which have to be used
13 in a moderately complex CLIA laboratory was determined by
14 laboratorians, not by non-laboratorians. So that's why
15 the difference.

16 Now, you get into a third issue of lower reporting
17 levels which is sort of related to limit of quantitation
18 so in the -- in the proficiency testing programs that we
19 looked at, we had lower reporting limits for these
20 programs anywhere from .0 to -- to 5, and 0.1 to 5
21 micrograms per deciliter for both ICP mass spec and
22 graphite furnace. Now, you're probably wondering why do
23 laboratories have reporting limits of 5 micrograms per
24 deciliter when all of those technologies could easily
25 reach at least 1 microgram per deciliter in graphite

1 furnace and ICP mass spec. It basically has to do, from
2 what I understand talking to many of the laboratories, is
3 they have no control over how the sample was collected,
4 what type of tube the sample was collected in and other
5 variabilities so they, by a policy decision, just simply
6 don't report below 5 micrograms per deciliter.

7 Again, that's a policy decision which they are quite
8 capable of doing, all right. So just want to make sure
9 that as we go and you all think about these various issues
10 that some laboratories, by policy, do not even report
11 below 5 micrograms per deciliter. Now, they can change
12 that policy, but that's some labs' current policies.

13 Next slide. So from the bottom line questions are
14 the tests, these three primary methods have enough
15 sensitivity, yes. Do they have the precision? We think
16 so.

17 Next slide. So the way we generated the -- the
18 statistics for which we're going to talk about in just a
19 moment, is we worked with several blood lead proficiency
20 testing or performance testing programs. The Wisconsin
21 State Laboratory of Hygiene which is one of the largest PT
22 providers in the country provides both regulatory PT
23 program, as well as the LRN-C PT program. The New York
24 State Department of Health trace metals in blood PT
25 program is available to all the laboratories that report

1 state of New York blood lead results, actually it's
2 required by laboratories that report state of New York
3 members of the program. Our own CDC's Lead and
4 Multielement Proficiency Program, LAMP, and we looked a
5 little bit at the Center of Toxicology Quebec program for
6 blood lead.

7 Next slide. So under the Clinical Laboratory
8 Improvement Amendments of 1988, there's a requirement,
9 blood lead is actually one of the regulated analytes in
10 law that states that three times a year a PT provider has
11 to submit five unknown samples to the laboratory and is
12 thereby graded on that.

13 Currently they have to get a passing result, plus or
14 minus 4 micrograms per deciliter, or 10 percent whichever
15 is greater. It is absolutely required for ICP mass spec,
16 graphite furnace, LeadCare I, LeadCare Ultra, LeadCare
17 Plus. But because the LeadCare II is a waived device, and
18 waived device meaning just like your blood glucometer that
19 you can go and buy at any store, that's nonprescription so
20 it's a waived device so it doesn't require proficiency
21 testing participation but a lot of laboratories do it just
22 for good laboratory practices. So we have a fair amount
23 of data to work with on all these different technologies.

24 Next slide. So here's an example of the number of
25 laboratories over the years that have reported for ICP

1 mass spec, graphite furnace and LeadCare II by the
2 different programs. Now you'll notice, like in the
3 Wisconsin program, you have way more LeadCare II
4 laboratories reporting than ICP mass spec and graphite
5 furnace even though they are the largest PT provider in
6 the country. But you have to remember that probably ICP
7 mass spec and graphite furnace produce 80-to-90 percent of
8 the blood lead results because they're highly automated
9 fixed laboratories whereas LeadCare II is not automated,
10 it's all manual, but it has a good purpose in life for
11 being able to screen quickly children and then report the
12 results to the parents or guardians immediately. So just
13 keep that in mind and ICP mass spec and graphite furnace
14 produce the vast majority of blood lead results in the
15 country.

16 Next slide. So we used blood pools from the 2010 to
17 2019 because what we did was when we were given the
18 request from the Board of Scientific Counselors we went
19 back to all these PT providers and said, could you please
20 try to challenge the laboratories in the 3 to 4 microgram
21 per deciliter range and fortunately they understood the
22 need and they did that. So the data that you're going to
23 see in a few minutes is -- are all based on samples that
24 were challenged between 3 and 4.1 micrograms per
25 deciliter. The -- we calculated the difference of each

1 result from the pool mean or target value. Now, we did
2 exclude outliers based on a classical three sigma
3 criteria, okay, because sometimes the laboratories are
4 just -- got results that are just outside of what we
5 consider analytical, reasonable levels.

6 Next slide. So we have a lot of data so the
7 statistics is fairly robust. The LeadCare II we had about
8 over a 1,000 results. Unfortunately because some of the
9 blood lead challenges were at 3.5 micrograms per deciliter
10 about 30 percent of those result -- 37 percent of those
11 results were less than the limit of detection. So we had
12 644 results above the limit of detection whereas the
13 graphite furnace and ICP mass spec we still had a
14 significant number of results but you can see by far
15 there's very few below the limit of detection. And a lot
16 of those are probably due to, you know, reporting limits
17 that were above the challenge target value.

18 Next slide. So here's a typical plot of data for the
19 LeadCare II. Now, this is a difference plot so we took
20 the target value minus the reported value and looked at
21 the difference and then we plotted it as a percentage.
22 You can see that it still -- a lot of the results are
23 fairly close to the target value. There are some outliers
24 way up on the high end, excuse me, that were reported, but
25 still there's a fair amount of data within a normal

1 distribution which you see the normal distribution is
2 plotted on that graph, as well.

3 Next slide. Now keep in mind, too, if you remember
4 your statistics from undergraduate or graduate school,
5 this is a typical laboratory distribution of results. So
6 if you take a sample that's very homogeneous and you run
7 it a bunch of times, 100 times, 1,000 times, whatever, you
8 will get a distribution like this because all analytical
9 methods have analytical error, especially when you have to
10 calibrate the instrument every time you analyze a sample,
11 you are going to get a slight variation. When you couple
12 both a new calibration every time and then most all these
13 analytical methods, except the LeadCare II or LeadCare,
14 have a background subtraction so this is a distribution
15 that you're going to get. So when we talk about standard
16 deviations, this is the typical distribution that one
17 would get in a laboratory for doing this type of work.

18 Next slide. But nothing's perfect. You're always
19 going to get some error. So here's the bottom line, from
20 all those PT programs we calculated the 95 percent
21 confidence interval for a blood lead result challenge with
22 target values between 3 to 4.1 micrograms per deciliter.
23 So in the case of the LeadCare II, you have plus or minus
24 1.8 microgram per deciliter. So whatever the target value
25 was, the 95 percent confidence interval for that result

1 for hundreds of results with plus or minus 1.8, and we had
2 over 1,000 data points. For graphite furnace, we were
3 actually expecting a little bit lower value but we got 1.6
4 micrograms per deciliter is the 95 percent confidence
5 interval. Obviously, for ICP mass spec it's much lower,
6 of course, it is a far more accurate and precise
7 instrument and you can run a lot of different metals at
8 one time but the cost varies considerably.

9 So if you're wondering what these technologies cost,
10 so the LeadCare II is approximately \$2,000, but it's all
11 manual, no automation. Graphite furnace can be anywhere
12 from \$20- to \$30,000 and ICP mass spec can be anywhere
13 from \$200,000 to \$300,000 depending on what model you
14 purchase. So you have to think about this, now, think
15 about when you see the next slide the slight difference
16 between LeadCare II and graphite furnace. Remember
17 there's still a lot of graphite furnace data that's
18 reported in this country.

19 So next slide. So this is a simulation based on the
20 results we just talked about for LeadCare II. If you had
21 a true blood lead sample that was exactly 3.5 micrograms
22 per deciliter, and you -- you analyzed that sample 40
23 times on a LeadCare II, this is the predicted error or
24 results that you would get from the LeadCare II. Now this
25 is a simulation, it is not real data, but the simulation

1 is based on over a 1,000 data points from the PT programs.
2 So if you were trying to say monitor a child at
3 4 micrograms per deciliter, if you just shift that red
4 line up to 4, and shift all the --

5 (short interruption)

6 **DR. JONES:** -- so keep that in mind. Now, remember
7 for graphite furnace, your -- the -- the scatter will be
8 slightly less, but it will still be scattered that will
9 look something like this, just, again, so that like your
10 plot -- your -- your data point at 6.2 or .3 would not be
11 6.2 or .3, it would be closer to 6, so keep that in mind.
12 So there's always going to be analytical error. And as
13 you get, again, closer to the limit of detection, that
14 uncertainty goes up significantly.

15 Next slide. So we also thought you might be
16 interested in, from the NHANES survey, what the
17 percentiles are for children in one to five years old. So
18 what we have here is the 2011 through 2014 cycles and then
19 2015 through 2018 cycles because the National Center for
20 Health Statistics always recommends that you use two
21 years' worth of cycles but you can see -- or two cycles,
22 four years, so the sample size is still fairly significant
23 so these numbers are pretty robust from a statistical
24 point of view.

25 And you can see the good news is the geometric means,

1 the 50th, the 75 percentiles and 90 percentiles are still
2 dropping which is great news, whereas the 97.5 percentiles
3 are still not dropping that quickly as the geometric means
4 of 50th and 75th percentiles, okay. So the
5 97.5 percentile is still close to what was proposed in the
6 past as 3.5 micrograms per deciliter.

7 Next slide. So in summary, these precision estimates
8 are based on hundreds, or thousands actually, of tests
9 between 3 and 4.1 micrograms per deciliter as we, you
10 know, ask the PT providers to do. The precision
11 measurements between 3.3 and 4.1 are relatively similar to
12 those reported in 2017 between 4 and 6 micrograms per
13 deciliter.

14 We have tried to talk to the blood tube manufacturers
15 and maybe this committee could also request from the blood
16 lead -- I'm sorry -- blood tube manufacturers to offer --
17 consider offering blood tubes that have less than .2
18 micrograms per deciliter blood lead equivalent. We test
19 everything for all of our biomonitoring studies,
20 especially in the metals, because metals are everywhere.
21 Just as mentioned earlier, leads in -- in the environment,
22 lead's in the earth's crust, lead's everywhere and if you
23 can think about it for all these collection materials, it
24 doesn't matter if it's a blood tube, a needle, a syringe,
25 a butterfly, a , Cryovial, analytical, you know,

1 autosampler tube, whatever. Lead and lead dust is
2 everywhere and when you get to these small sample sizes,
3 especially like a finger stick sample, you're only talking
4 about picograms of lead that can give you a significant
5 false positive. So we test everything -- we test a subset
6 of every lot of blood tubes, needles, syringes,
7 butterflies, anything that we use for our studies, like
8 the NHANES study, and any other biomonitoring studies we
9 have. So that's how we can ensure that the -- or help to
10 ensure that the NHANES data is not significantly altered
11 because in our lot testing over the years -- because we
12 have two people that their whole job in life is just to
13 test all these different types of devices. We have found
14 a fairly significant number of tubes, about 10 percent, of
15 our lots have actually failed and some of them have failed
16 with pretty high levels, fortunately not that many have
17 failed, so we have to be careful with all this. And
18 that's one thing to consider is the typical blood tube
19 could have a contamination in it that would give you a
20 slight false positive.

21 We would like to see the precision of these methods
22 increased. We have -- CDC has actually -- and the
23 previous ACCLPP committee has sent CMS, the Center for
24 Medicaid/Medicare Services which regulates all this
25 testing, to change the PT criteria from plus or minus 4

1 micrograms per deciliter or 10 percent to plus or minus 2
2 micrograms per deciliter or 10 percent, whichever is
3 higher. We do think that this change in PT criteria will
4 help with the accuracy and precision of these blood lead
5 measurements and probably force a lot of laboratories to
6 report below 5 micrograms per deciliter.

7 We do realize that blood collection contamination
8 issues are going to always persist. One thing that we
9 forgot to put in this presentation is CDC has a blood
10 collection video specifically aimed at blood lead to help
11 reduce the possibility of contamination. We can send you
12 all that link if you don't already have it. It's a nice
13 little video to help the people who are in the front lines
14 collecting these samples lower the possibility of
15 contamination when they collect the samples which will
16 give you a false positive. All right.

17 Next slide. And I'd also like to acknowledge
18 Dr. Jerry Thomas who's our Associate Director for Science
19 for some very helpful comments on helping to prepare for
20 this presentation. So that's all I have and I'll open it
21 up for questions.

22 **DR. BREYSSE:** And this is Pat, if you don't mind I'd
23 like to just put a little bit more perspective on it
24 before we open it up.

25 **MS. TELFER:** Yes, sir.

1 **DR. BREYSSE:** When -- when -- when Robert says we ask
2 for advice on assessing the precision accuracy with
3 respect to clinical guidance, I want -- I want to clarify
4 that a little bit. So in some cases clearly a blood lead
5 level will be high enough that we need to clinically
6 intervene. I mean that in a classical clinical sense, you
7 need to do something to that kid immediately in terms of
8 chelation, for example. And -- and I don't want to
9 confuse the matter because those blood lead levels are --
10 are much higher than we're talking about here and I don't
11 think these accuracy of precision issues apply to children
12 who are -- who are really clinically, you know, high
13 enough to intervene in blood lead.

14 So really what we're talking about is are these
15 methods sufficient in terms of precision accuracy to -- to
16 do some sort of educational intervention or some sort of
17 environmental intervention. When are they
18 inappropriately, you know, precise to -- to tell a mother
19 that their kid is -- child has -- has a blood lead that's
20 measurable or at 3.5. So, for example, in many states
21 right now if you have a blood lead level less than 5, the
22 lab, as you heard, reports back it's less than 5, the
23 parents are told you don't have it and your -- your child
24 has no blood lead exposure. They -- they -- they passed
25 the test.

1 But in reality, they could be between 3.5 and 5 and
2 simply telling the parent that yes your -- your child has
3 a detectable blood lead level, we think it's somewhere
4 around 3.5 or 4 whatever it might be, you know, is
5 oftentimes the debate that we're having right now is when
6 is it -- when is it appropriate enough to tell the parents
7 that they have a blood lead level? When is appropriate
8 enough to then -- and then following each state's
9 guidelines, now, because every state does this
10 differently, to start doing some environmental
11 intervention or home visit and stuff forward? So keep in
12 mind when we talk about the clinical relevance, in most
13 cases we're not -- in these low levels we're not talking
14 about any kind of clinical relevance in the classical
15 sense of that word. So I just want to make sure that
16 that's the -- that's -- that's the way we're framing the
17 debate right now, at these low levels. So I'll stop
18 there.

19 **MS. TELFER:** Thank you Pat, that's really helpful in
20 guiding the discussion, I think, as we move forward. Just
21 a reminder to everyone that there are a couple of ways for
22 our panelists to signal that you have a question or
23 comment and that is to raise your hand in that hand
24 raising function or you may tell me, or the panelists,
25 individually or collectively in the chat. And I would

1 like to thank our attendees because we have had people in
2 the attendance group raising your hand with each
3 presentation that's being made for which we thank you,
4 it's exciting to see that level of interest; however,
5 because this is a -- a Federal Advisory Committee meeting
6 these portions of discussion and comment are for the
7 panelists themselves, for the advisory committee members.
8 If you do have a question from the audience, please feel
9 welcome to email that to us through the -- the portals
10 that are provided on the website or other information that
11 you may have available to you. And we thank you for your
12 interest and your enthusiasm. Now let's open it up to the
13 panelists for any questions or comments you have for Dr.
14 Jones.

15 **DR. BREYSSE:** While we're waiting for comments, I
16 just want to also acknowledge the, you know, the -- the
17 laboratories you heard from -- from Dr. Jones in the
18 Division of Laboratory Sciences, in -- in -- in many ways
19 defines the state-of-the-art in terms of analytical
20 methods for environmental contaminates going forward and
21 this is no different so we're quite fortunate to have the
22 -- the access to the expertise in our laboratory to help
23 us think through these things.

24 **MS. TELFER:** Thank you.

25 **DR. BREYSSE:** Let me -- let me -- let me poke the

1 bear a little bit here. So last time we had this
2 discussion and certainly when we went to move from 5 to
3 3.5 a lot of the concerns that were raised outside of our
4 center were around the sufficiency of the methods for the
5 purposes that we intend to use them for. So that will, I
6 imagine, be a concern that we're going to have to address
7 with, again, going forward.

8 And so you -- you -- you heard that there's a lot of
9 -- there's -- we're -- we're certainly for LeadCare
10 devices and for the non-ICP-MS analytical methods that
11 there are issues about how -- how -- the precision around
12 these levels. I think it's -- it's important to note that
13 the ICP-MS method probably has little or no concern about
14 either the precision or accuracy for measuring levels
15 around the 3.5 level going forward. So, you know, we're
16 just -- want to make sure that you guys have a chance to
17 give us your insights or express any concerns you might
18 have about moving forward with lowering the blood lead
19 reference value with respect to the analytical precision
20 and accuracy.

21 **MS. TELFER:** Super. Thank you very much. So we have
22 both a technical or clinical and a behavioral or
23 intervention challenge here. So we have a couple of hands
24 that have been raised. Let me go first to Howard Mielke.
25 And remember always to unmute.

1 **DR. MIELKE:** I think you answered the question that
2 maybe we're not at the point where we can really use 3.5
3 simply because of the difficulty with using point-of-care
4 equipment for doing the blood lead measurements, am I --
5 am I correct?

6 **DR. BREYSSE:** I'm not sure what your question was,
7 Howard?

8 **DR. MIELKE:** Oh, I was going to ask whether we're --
9 we're at a point where we can actually reduce the -- the
10 -- the level that we recognize as being hazardous or too
11 high to 3.5 and I understand that that doesn't look like
12 it's going to be possible easily with the point-of-care
13 equipment that we have right now; is that correct?

14 **DR. BREYSSE:** So I don't know if that's fair, but you
15 know, we can open that up to everybody. You -- you all
16 saw the data, but I just want to make sure that we
17 understand that our reference value is not a hazard
18 threshold and we don't -- we don't pretend it to be that
19 way. And -- and we will work with you when -- if -- if
20 and when we lower the reference value to have a very
21 carefully thought out communication strategy to address
22 what the reference value is. So it's -- it's a threshold,
23 but it's not health based, but it's statistically based
24 using the NHANES data that -- that -- in -- in -- in its
25 simplest form identifies the tail, the upper end of the

1 distribution within a normal population and says, these
2 are -- these are kids we want to target for whatever ends
3 we -- we decide that be, whether it's, you know, and
4 again, it's up to the states what that targeting means.
5 Do you simply just tell a parent, you give them risk
6 communication, does it trigger a home visit, you know, all
7 -- all these things will be kind of part of revising the
8 reference value. But -- so I want to -- I want to make
9 sure that we resist referring to the reference value as a
10 health-based hazard threshold, if you don't mind, Howard.

11 Now, the other -- the other question is something
12 we're asking you guys today, you know, if we lower the
13 reference value, does that mean the point-of-care devices
14 are -- are not useful, does it mean they're less useful,
15 does it mean they're screening values? Can we live with
16 the lack of precision with these devices? Those -- those
17 -- these are all -- this -- this is the -- this is the
18 debate that we went through, you know, three years ago.
19 So that's -- your -- your question is relevant and it's a
20 conclusion we're hoping you guys help us think about the
21 answer to.

22 **MS. TELFER:** Thank you.

23 **CDR LEONARD:** This is Monica Leonard. I just wanted
24 to weigh in... Hi Jana, I also wanted to just weigh in
25 and just add on to what Dr. Breyse mentioned that the

1 blood lead reference value is, indeed, it is a population-
2 based screening tool to help identify children who have
3 been exposed to lead. In -- in particular, it's not meant
4 to indicate who -- who is at -- who is at risk for lead
5 exposure. So I just -- so thank you.

6 **MS. TELFER:** Thank you, Monica. I appreciate that.
7 So Dr. Breysse has posed an additional question for your
8 consideration which is can we live with the lack of
9 precision in the equipment available to us, but before we
10 go to that, let me please turn to Jill Ryer-Powder.

11 **DR. RYER-POWDER:** So -- so my understanding, please
12 correct me if I'm wrong, is the lack of precision is not
13 that much different from 5 to 3.5; is that true?

14 **DR. JONES:** True. It is different, but it's not what
15 I would consider significantly different; depends on your
16 -- your term, significant difference.

17 **DR. RYER-POWDER:** Right. So -- so, you know, I'm --
18 I'm part of the blood lead reference value committee and,
19 you know, one of the -- one of the big issues or questions
20 is how exactly is this blood lead reference value going to
21 be used. So my take on it would be if you're -- if you're
22 detecting blood lead on one of the machines and the -- and
23 the lack of precision isn't that much different from 5 to
24 3.5 and we know that there is no safe blood lead reference
25 value, then why wouldn't it be that you get the result

1 from the -- from the instrument or wherever you're getting
2 the result and the communication to the parent would be
3 here's what the blood lead -- or here's what the blood
4 lead value is, here's the error around it, you know, it
5 could be between this and this, but the fact is any level
6 of lead in the blood is unhealthy so let's start doing
7 these kinds of things. Why -- why is that a problem?

8 **DR. BREYSSE:** That's the \$10,000 question.

9 **DR. RYER-POWDER:** So -- so I don't see that there's a
10 problem there so -- so, you know, so then I would go back
11 and say, why wouldn't we lower the blood lead reference
12 value in accordance with using the NHANES data as our --
13 our benchmark value and then just make sure that the --
14 try and standardize the communication to parents or to
15 whoever you're communicating with that this is exactly --
16 or this is what the value coming out of the machine means,
17 but any value if it's above zero is something that we
18 should -- we should take seriously and try and lower.

19 **MS. TELFER:** Thank you. That's a provocative and
20 foundational response. Let me turn once more to Howard
21 Mielke, and I will caution you that we have just a couple
22 of minutes remaining in this session and knowing how long
23 everyone has sat thus far this morning we want to give you
24 all an opportunity to have your break. So, Dr. Mielke,
25 and then we'll go back to Perri.

1 **DR. MIELKE:** Is there a similar type of program for
2 the measurement of environmental issues that where the --
3 we're finding lead in the environment. I've been working
4 with XRF on soils and I think we've made enormous progress
5 there. Is there a similar type of program dedicated to
6 the -- to measuring the amount of lead in the environment
7 is my question?

8 **DR. BREYSSE:** So I would ask if our EPA colleagues
9 know the answer to that question because as -- at the
10 Center for Environmental Health we don't deal with
11 environmental measurements. We deal with the biological
12 measurements so we -- I wouldn't know the answer to that,
13 but -- but maybe our EPA representative does.

14 **MS. RUCKART:** Okay. This is Perri Ruckart. I think
15 that we're going to move on. I want to thank Robert for
16 your very informative presentation, and it will be very
17 helpful to keep in mind all of the issues that you've
18 raised when we hear the BLRV update later on in the
19 agenda.

20 So we are now scheduled to take a 15-minute break and
21 come back at 11:30 a.m. to hear a presentation from Matt
22 Ammon on HUD's role in lead poisoning prevention. I also
23 want to mention if any of the audience members have any
24 questions, as our facilitator mentioned, we're unable to
25 get into that during our meeting, but you can always email

1 us at lepac@cdc.gov, l-e-p-a-c at cdc dot gov, so
2 thank you. And now we will start our break.

3 (Break, 11:17 till 11:30 a.m.)

4 **HUD'S ROLE IN LEAD POISONING PREVENTION**

5 **MS. RUCKART:** Okay. Welcome back. I have 11:30 so
6 let's go ahead and get started since we do have quite a
7 full agenda. I'd like to now turn it over to our Chair,
8 Matt Ammon, for him to give us a presentation on HUD and
9 their efforts. Thank you.

10 **MR. AMMON:** Thanks, Perri. So let me just start out
11 with saying that, you know, our office has been around
12 since the early '90s and I think there are -- certainly
13 one overriding element in the office which has really
14 helped, not only it grow but also, you know, increases
15 impactfulness in the department and that is that the
16 office is located in the Office of the Secretary. It has
17 always been that way and it's also in the authorizing
18 language it has to be led by a career official. But the
19 fact that it's in the Office of the Secretary has really
20 made a difference because in terms of layers, we basically
21 have one layer in terms of who we go to for direction and
22 feedback and I think it's been a really great partnership
23 over the years with that. And it also helps us to be
24 really nimble and flexible and I think in that way, you
25 know, we can very much respond to the needs of the

1 communities.

2 So, you know, our -- our operating objectives, I
3 think, are -- are pretty straightforward. One is really
4 focusing on supporting communities, you know, that's our
5 key. And in terms of that, you know, the most important
6 thing that we do for that is really listen to communities.
7 Listen to what their needs are, being able to respond to
8 the needs of communities, you know, ensuring what they
9 have to be successful. And feedback from those
10 communities is a constant feedback for us where we can,
11 not only improve, you know, the policies and programs that
12 we have or make modifications to any one of those to best
13 fit their needs, but also it allows us to be very flexible
14 in developing new programs based on what we're seeing the
15 needs are in the communities and -- and how that
16 information gets to us and really how quickly we can turn
17 around and develop a program really from scratch in a
18 pretty short amount of time.

19 We -- we also, you know, have a lot of convening --
20 convening authority locally to be able to bring together
21 -- to bring together partners to focus on outcomes. So,
22 you know, I think that is key that we can go in locally
23 and look at the diverse set of layers in a -- in a
24 community and really bring them together. And you know,
25 while they come from different disciplines and maybe speak

1 different language, I think we're all very much focused on
2 similar outcomes which is not only improving communities
3 but also for the families and children and the residents
4 that live there.

5 And -- and funding, of course, and our funding over
6 the last couple of years has really greatly increased to
7 historic levels which, you know, is putting a -- a firm
8 footprint that this work still matters, you know. I know
9 Dr. Breysse talked about we're still talking about lead.
10 We are and the fact that we've been able to get more
11 funding to help the communities out means that the problem
12 is obviously still there and needs to be dealt with.

13 And -- and, again, focusing on supporting
14 communities. We've come up with some pretty innovative
15 programs to help them do that, whether it's expanding our
16 Healthy Homes work to include that work as part of regular
17 lead hazard control work or developing a new program for
18 tribes in terms of Healthy Homes. Or you know developing
19 programs to help communities deal with asthma during -- or
20 after -- I should say natural disasters like hurricanes
21 and the like.

22 So in -- in that way, you know, so our operating
23 objectives of course are on focus on supporting
24 communities but also really the second thing is, you know,
25 trying to -- trying to always innovate what we're doing

1 and be flexible and be creative, always trying to push the
2 envelope and be responsive to that first operating
3 objective, which is focus on supporting communities. And
4 at the end of the day everything that we do happens
5 locally and our work is local and so we want to make sure
6 that we are a part of the solutions that are developed
7 locally and that we are there to help local communities
8 get what they need to be able to solve the problems that
9 exist locally.

10 And then the third operating objective is really
11 partnerships. None of this work happens alone, none of
12 this work happens just in -- just in a -- a singular
13 fashion. The only way we've been able to be successful is
14 through the partnerships that we have had throughout the
15 years where we gather the strength of our networked
16 partnerships collectively to solve problems, and our core
17 partners, as you know, has been -- have been CDC and EPA
18 since -- since the beginning. You know, we -- we've had
19 this great model of success and -- and others, of course,
20 you know, we've been able to branch out because, again,
21 this problem is a complicated problem. But especially
22 with CDC since we have both ends of the spectrum where we
23 have the clinical management side and then we have doing
24 work in homes. It's sort of, you know, the hand-in-hand
25 and -- and knowing where we need to go and then making

1 homes safer for children who are not yet occupying homes.
2 But again, our office over the years has -- have these
3 three operating objectives which -- which have been great
4 and through that --

5 Next slide. And through that, you know, we do have
6 our -- our programs, in general, you know they focus on
7 lead hazard control and you don't have to really focus on
8 the numbers here, but it's really the program. So
9 focusing on lead hazard control, focusing on -- on
10 expanding that work in homes to more health and safety,
11 you know, regarding Healthy Homes. And then again, the
12 bottom area talks about us being flexible to what we're
13 seeing as needs and we've been able to stand up programs
14 pretty quickly, almost within the same fiscal year, where
15 we can get an idea, get feedback from a community and be
16 able to develop a program and certainly the Healthy Homes
17 tribal one is exactly like that where our Office of Policy
18 Development and Research does a core report on Native
19 American and Native Alaskan tribal housing conditions.
20 And -- and through that we saw certainly a need in
21 conjunction with our Community Development Block Grant
22 funding to really focus monies there and, of course, you
23 know, there are statutory prohibitions which I think make
24 it -- certainly make it harder for tribes to apply and
25 access funding for lead hazard control given that they are

1 obviously treated like states from EPA which is just
2 another layer of difficulty.

3 So as -- as we have these programs available and as
4 funding increases we are also at the very same time
5 changing processes internally so that communities can
6 better access this funding and use the funding and -- and
7 not have so much of a burden to access the capital that
8 they need to be able to solve these problems locally.

9 Next slide. And so obviously we -- we've been
10 talking about this that older housing -- older housing is
11 unhealthy housing. And so, you know, the majority of the
12 work that we do focuses on -- on lead paint hazards, on --
13 on meeting asthma triggers, broadly health and safety
14 hazards, again, all in terms of focusing to impact --
15 which can impact on community health.

16 So again, everything that we are doing does have an
17 impact on -- on homes, has an impact on families and has a
18 broader impact on the community. And so the -- the more
19 that we can get into areas, you know, the more capital can
20 come because I'll talk about our partnerships that we have
21 which are raising more -- a lot more capital than we had
22 before as match and leveraging dollars to help bring in
23 additional resources to these communities.

24 Next slide. And we talked about this early on, you
25 know, the cost. You know, the cost of unhealthy housing

1 and so it just makes sense for us to do this work because
2 we're talking about preventing injuries and diseases,
3 lowering healthcare costs, increasing in school and work
4 performance, you know, decreasing the number of ^ school
5 and work days. A whole host of issues by focusing on --
6 on, not only on prevention, but also focusing where it's
7 going to be needed most because certainly the costs of us
8 doing this work is a heck of a lot less than the
9 downstream costs of increased healthcare and -- and
10 everything else and also community impacts. So again,
11 focusing this work on housing and health and making that
12 connection has been an important part of what we've been
13 trying to do at HUD too, you know; I think the term
14 Healthy Homes, you know, I think it now it's normal
15 lexicon in the -- in HUD whereas, you know, it took a
16 number of years to get to that point.

17 Now obviously many people are talking about it and
18 talk about the ways that the connection of health and
19 housing are important and social determinants of health
20 and all those other things and -- and I think we're at the
21 point now where we're in the building, people get it,
22 which is really important, and it made no surprise to me
23 that our -- our Secretary is a -- is a pediatric
24 neurosurgeon. So first time ever we've had a health
25 person, a health focus at the top of the agency which has

1 definitely helped us as well.

2 Next slide. And -- and we know that this -- this
3 work matters and this work makes sense and this work is
4 cost effective. So if we look at every dollar that we put
5 into this work, we know there is a great return on an
6 investment and a great set of outcomes and focusing on
7 outcomes is what we've always tried to do rather than just
8 individual widgets and individual aspects. It's really
9 those broader outcomes which we are focused on and -- and
10 you know, the vast majority of research obviously shows
11 that this work matters and that this work needs to
12 continue.

13 Next slide. So I -- I like to say that, you know,
14 that these funds are -- our grant funds really do
15 transform communities. So when I -- I speak to mayors and
16 other elected officials I have this quick elevator speech
17 about why you should look at this source of funding.

18 And to me the three laser points I always talk about
19 are one, you know, these funds fix older housing. Two,
20 these funds preserve affordable housing, and I think
21 that's a key for mayors and other elected officials to
22 know because we're not going to build enough affordable
23 housing to meet the needs. We need to preserve the
24 existing stock we have and this program does that. You
25 know, it does preserve the affordable housing stock that

1 is so desperately needed in this country. And then the
2 third thing is really these funds improve the health of
3 residents, children and the community at large.

4 So one, yes we are talking about supporting the
5 development of lead in Healthy Homes programs that focus
6 on health and safety to further affordable housing goals,
7 to demonstrate that having a healthy home and a healthy
8 environment is feasible and beneficial. It does promote
9 then the existence of public and private partnerships as
10 people realize the transformation that is going on in the
11 community and we have more and more folks wanting to be
12 able to join those efforts and more and more focus on the
13 healthcare side are joining that, as well. So folks that
14 we may not traditionally think of as joining our efforts,
15 they are.

16 And look at really integrating this work into broader
17 systemic thinking about the way we look at housing and
18 infrastructure projects and planning and it's not an
19 afterthought. It's -- it's well within the development
20 and thinking about, you know, when we talk about housing
21 and infrastructure including the need for safe and healthy
22 housing as part of that becomes a huge sustainable aspect
23 of this work.

24 Next slide. And in terms of -- of funding, you know,
25 these are just averages but, you know, it does show for me

1 the -- the right one, partner funding, is the most key
2 because, you know, as we look at average costs, just
3 average costs, for what we do in lead and what we do in
4 Healthy Homes, you know, more and more of the partnership
5 funding is really increasing which is -- which is great
6 because, you know, that's what we're looking beyond just
7 looking at, you know, in grant dollars indefinitely
8 looking at ways to sustain this work beyond just grant
9 funding and we're seeing more and more folks, private
10 partners, and nonprofits and such be excited about this
11 work and want to include this work because, again, even
12 though we may speak different languages we have very, very
13 similar outcomes.

14 Next slide. So our funds can pay for a lot. It
15 really can still. When you look at being more efficient
16 in -- in how we address health and safety hazards in home,
17 beyond what we've done in the past. So in the past, you
18 know, we took a very singular approach, we just focused on
19 lead, right. Or -- or we just focused on asthma and what
20 we've been able to do is align -- align, not only that
21 thinking, but actually the work itself. So even though we
22 have a statutory lead pot that is only allowed to do one
23 set of things, we have this other Healthy Home fund pot
24 that can do more additive work in homes.

25 But it's still, you're going into the house once,

1 you're doing the work once, you're not having multiple
2 people enter the homes and that is really, you know,
3 looking as really the Healthy Homes model, taking a multi-
4 faceted approach instead of a singular approach to, not
5 only increase the benefits, but also be much more cost-
6 effective in how we deal with homes. And this is in -- in
7 certainly in direct response to what we were hearing from
8 communities where they -- they didn't want to keep sending
9 folks in a million times to do work, tapping into the
10 existing streams that are -- already enter a home and
11 adding to that is what, you know, the Healthy Homes model
12 is all about. But if you look, you know, our funds pay
13 for a lot so this covers a lot of the issues that -- that
14 we are dealing with in -- in communities no matter where
15 you are. No matter where you are and -- and homes are --
16 are, you know, every year a new set of cohort homes get
17 older and so, you know, we're seeing more and more homes
18 have substantial lead-based paint hazards but also other
19 substantial hazards around the country. And you know,
20 while there's certainly been a lot of private investment
21 in rehabbing homes for the -- for the middle class and
22 higher, you know, we're still focusing on -- on a huge
23 cohort of lower income homes that remain in very poor
24 condition.

25 Next slide. So this is just, obviously, a sample of

1 the work. This could be anywhere in -- well, I guess,
2 anywhere in the country. You know this work, you know,
3 not only does it help, you know, protect the health and
4 safety of the occupants, but it looks good, right? And so
5 you know, for us when I talked about that investment, you
6 know, this means that if somebody's looking to maybe do
7 work -- do work as a company to come in and do some
8 investment work it -- it really helps that you can start
9 with that one house on the street and people can get
10 excited about change and -- and for us it really just
11 comes down to that one house almost and starting with that
12 one house. So later in the deck when -- when I go over
13 our neighborhood work a lot of that is built around that
14 one house and realizing what we can all do collectively to
15 start improving neighborhoods and improving communities
16 and sometimes it just comes down to making that first
17 house right.

18 Next slide. And this is just more of the same.

19 Yeah, more of the same work.

20 Next slide. And more of the same work and this time
21 it's multi-family. So again, the -- the work that we do
22 is -- is both single family, multi-family, owner occupied,
23 renter, we -- we pretty much do it all.

24 Next slide. So this really talks about where we need
25 to be, you know, we -- we have funding but it needs to get

1 into the places where we need to be and you can just see,
2 you know, this is just a general representation across the
3 U.S. There are a lot of areas that -- that should be
4 accessing our funds which surprisingly are not. And in
5 given this day and age, you know, in -- in the same time
6 that our funds are increasing we -- we want to make sure
7 that communities continue to request for this funding and
8 continue to ask for -- for us to be able to be champions
9 for them to get the money and it does get, you know, a
10 little difficult when we talk about the higher dollar
11 value that we have per grant. Some grantees, you know,
12 could -- could definitely go through that money but also
13 the smaller communities may have a harder time. So that's
14 where it's really important that we have all the
15 partnerships and everybody working together on this work,
16 but there is no shortage of need across the U.S. for this
17 work.

18 Next slide. So for -- for our -- this is for lead
19 hazard control grant funding. You know, it's -- it's
20 typical, your units of -- of local government can apply.
21 State and tribes authorized by EPA which I mentioned
22 before. Units of local government so, you know, city
23 health departments, things of that nature. But you can't
24 just have the two jur -- two entities when the same
25 jurisdiction apply, but it's pretty broad, I mean, it --

1 it's not just states, you know, it's -- it's very broad
2 across the U.S. that can access this capital and, again,
3 we've done a lot of work to make it a much more
4 straightforward process for jurisdictions to access this
5 funding.

6 Next slide. So authorized states, this just comes
7 down to as part of our -- our authorizing legislation they
8 have to have a for to -- or have to have their own program
9 to apply as a state and so the -- the middle one is key
10 because we talk about the tribes and how little they are,
11 little who -- who run their own programs, their
12 certification and accreditation programs, again, which
13 puts them at a disadvantage because there's only two or
14 three, I guess three in the nation that have those
15 programs and that's where we wanted to come up with a
16 program on the Healthy Home side so they would be able to
17 access the funding.

18 So the states on the bottom are not eligible to apply
19 but, of course, cities within -- cities, counties within
20 those jurisdictions are able to apply. And this was just
21 a longstanding piece in the authorizing legislation that,
22 you know, really -- they really, I think, the framers
23 really wanted states to -- to develop their own programs,
24 but some -- some did not. But again, it's not that we're
25 not doing work in these areas, because we are, it's just

1 simply those states specifically are not authorized to
2 apply for the funding, but again, we have grantees in
3 almost every single one of these states and almost in
4 every single state in the U.S.

5 Next slide. So the good thing is that we make a lot
6 of people happy so we just made a lot of people happy back
7 in late September where we awarded a good amount of money
8 to communities across the country to do lead hazard
9 control work and also when they can request lead hazard
10 control money, they can also request Healthy Homes money
11 at that same time. So it's one grant going forward, well,
12 one collective grant, two pieces of -- two pots of money,
13 so they can do this work. So we announce this work and we
14 -- we always like to be able to announce grants or at
15 least have everything done the same fiscal year it was
16 allocated by Congress and so I think that makes a lot of
17 communities happy, but also it just -- it's just good
18 practice to be able to get the money and -- and send it
19 back out the same year it was given to you. So again, we
20 had a pretty big grant announcement back in September
21 regarding our lead hazard control funding.

22 Next slide. And then we did the same thing a little
23 -- couple days after for the tribal communities. So
24 again, this is focusing on tribal communities that
25 allocates Healthy Homes money and of course they can do

1 lead work in there as well, but it's nice to be able to
2 provide the tribes a source of funding. Before I go to
3 the next slide, I will say that we did announce the lead
4 tech studies awards too, a couple days ago. And there
5 were six grants awarded for about 3.8 million and good
6 work, you know; it's great work. If you go to the website
7 it gives the description of the work that we funded. But
8 I do want to say that tech studies has been a huge part of
9 what we do on a regular basis because proving the value of
10 the work is essential, trying to be more cost effective in
11 those methods, research and techno studies has been a core
12 part of everything that we do throughout the history of
13 our office, not just our lead hazard control grant
14 programs going for evaluation, remediation, but technical
15 studies has -- has always been a key part of -- of the
16 work.

17 Next slide. And this is just evident of that. You
18 know, I don't want to talk all about the Lead Hazard
19 Control Program. I do want to talk about the great work
20 that research -- our researchers and -- and -- have done
21 across the country. This is probably outdated just in
22 terms of the numbers, but just wanted to show people that
23 -- that this work -- this source of funding has been a key
24 part of our work.

25 Next slide. And the information that has come out of

1 that has really been influential in setting policy for us
2 and -- and setting policy to help our grantees, not only
3 work better, work more efficiently, but also just in
4 general, trying to answer some of the key questions that
5 have cropped up as -- as we get, you know, when we go to
6 conferences we always say, well how come we didn't look at
7 this? Well we always try to stay on top of it, and again,
8 the funding is flexible enough and -- and again, quick
9 enough within a year that we can pretty much turn around
10 what we've heard the needs are -- needs are in terms of
11 research and be able to provide that funding.

12 But again, this has been very influential for us to
13 not only set policy, but also to answer the questions that
14 have keep coming up and I -- I dare say that there's very
15 few dollars that goes to health and housing research. I
16 wish there was more but there's only a couple of folks who
17 are still doing it and so for us to be able to provide
18 that continuous source of funding every year, you know, I
19 think has really been critical to maintain. To maintain
20 you know, the model and model of excellence but also with
21 the current -- current state of science is on all this
22 work.

23 Next slide. And this is just new and -- and, you
24 know, the weather at the top and the weatherization is key
25 because we're asked more and more to work with not only

1 agencies but also locally you know who -- who enters the
2 homes and how we can combine that work and so the more we
3 can focus and work together with folks who are entering
4 homes, the better off we'll be, you know, in general. So
5 focusing on weatherization and being able to expand
6 weatherization where we can, but also in terms of, you
7 know, a new -- a new thing that we are looking at is
8 trying to align a lot of the income eligibility
9 requirements in the federal government related to this
10 work.

11 So there's a team put together, you know, to help do
12 that alignment because weatherization and those type
13 programs from HHS but also Department of Energy use
14 federal poverty level and -- and HUD uses area median
15 income. And a lot of time that just creates a source of
16 confusion for -- for those -- for the population that we
17 both serve, given that they are a separate set of income
18 eligibility requirements. And so harmonizing those you
19 know it was really important because at the end of the
20 day, again, we're serving the same population and there's
21 been great work done in that -- in that working group to
22 make progress on, you know, having a better bureaucracy
23 serve the people, who -- who would have imagined that?
24 And so very pleased with how that's going and I can't wait
25 to see the outcome of that work so that, you know, there

1 is better alignment between weatherization and Healthy
2 Homes.

3 Next slide. And enforcement, you know, we have a
4 pretty robust enforcement program, obviously, we have
5 joint enforcement authority with EPA and they've been a
6 partner with us since day one on this and we've made some
7 real progress. You know, through this work we have made a
8 lot of units lead safe. We have put a lot of recalcitrant
9 landlords on notice who have -- had children with repeated
10 poisonings in their properties. We've done a lot of work
11 in terms of -- of offsetting penalties by -- by not having
12 them pay such a big civil money penalty but including a
13 pretty robust abatement program in their -- on all
14 properties they own. So even though we may focus on an
15 owner that has, you know, X number of properties in
16 Maryland, if they own properties around the country, we do
17 consent decrees where they would have to do all their
18 units, excuse me. So we have a very robust enforcement
19 program and, again, this work is done with EPA around the
20 country and it really has made, you know, I think
21 certainly a lot of landlords have, you know, paid
22 attention to this because the -- the penalty can rack up
23 pretty quickly, but it just, you know, it makes -- makes
24 no sense where, you know, you continually have these
25 landlords that have poisoned kids on their properties and

1 they don't do anything about it.

2 Next slide. So obviously, back -- way back when in
3 Title 10 also said for us to -- HUD -- to come up with,
4 you know, the -- the best methods in terms of evaluating
5 and controlling lead-based paint hazards in housing so we
6 have The Guidelines. I think the capital "T" is key.
7 These guidelines have been incorporated for the most part
8 in many, many state programs as you know the method of
9 doing evaluation and control of lead-based paint hazards
10 in housing. And so we've always tried to stay on top,
11 again, of current science and always try to improve
12 methodologies and update those guidelines so that we can
13 give the best advice to jurisdictions as they do this
14 work.

15 In addition we also did a Healthy Homes guidance
16 manual to help programs establish -- I'm sorry, to help
17 jurisdictions establish Healthy Homes programs and this is
18 a real good guide book because it really gives good
19 examples of how jurisdictions have been able to develop
20 Healthy Homes program and what they focused on and giving
21 case samples has really been important for folks to
22 understand how these types of programs can benefit their
23 jurisdiction.

24 Next slide. Everybody does outreach, I understand.
25 So the only thing I want to say about this is that more

1 and more we're getting into disaster recovery work and the
2 rebuilding Healthy Homes app and a lot of this work has
3 been done by all the federal partners, you know, in terms
4 of rebuilding safety after disasters. And you know it
5 seems that we have more and more and more natural
6 disasters and so staying on top, being able to guide
7 people in terms of as they rebuild, rebuilding safe and
8 healthy and what they do when they enter their home for
9 the first time is -- is really key. So I appreciate all
10 the work that everybody has done collectively, you know,
11 to focus on as people rebuild making their homes, not only
12 safe and healthy to occupy, but also as they rebuild.

13 Next slide. And cross-cutting -- I can't say enough
14 about the work that we've done with -- all of -- everybody
15 here in terms of the smoke-free public housing and also
16 the Medicaid reimbursements for lead poisoning and asthma
17 assessments. I -- I always look for what opportunities we
18 can -- or what opportunities we can look for to help
19 sustain funding for this type of work and there have been
20 a lot of improvements on the Medicaid side that has
21 allowed us to work closely with state Medicaid to amend
22 their state Medicaid plans to include this type of work,
23 not only on the lead side but also the asthma side, given
24 that there're such cost differences between how much money
25 we put in a home and how much it makes a difference versus

1 how much money Medicaid is -- is putting toward
2 hospitalizations. It -- it's one of those things where we
3 do have to work with all the states to make it happen. It
4 would be certainly a lot easier to have HHS put out
5 something in general that helps support this work and I
6 think they have, it's just I wish more state plans had
7 this included so that, you know, we have more of a
8 dedicated source of funding, especially on the asthma
9 side.

10 Next slide. We've done a lot of work obviously
11 together with the Federal Radon Action Plan and also the
12 interagency groups, which has really been key to a lot of
13 our successes over the last, you know, 20 years, not only
14 on the lead side, but also on the asthma side, and
15 participating in these federal energy workgroups has,
16 again, put a collective voice together in terms of
17 focusing on -- on outcome so it's been hugely beneficial,
18 not only to HUD, but also to everybody that has been --
19 has joined these workgroups.

20 Next slide. And you can't see the bottom part, but
21 so the last thing I want to talk about was, so this
22 community engagement that has really been a key part of --
23 of what we do and --

24 Next slide. So -- so a couple of years ago we had
25 been working with rebuilding together on doing

1 neighborhood events and these neighborhood events were
2 done, you know, across the country. We would -- we would
3 do probably 25 to 30 homes over a week time. We had a lot
4 of partners that would join us as really a launching point
5 for community revitalization. And what we learned was
6 that our grantees are -- are and, of course, we share many
7 grantees, as you know, they're -- they're a fantastic
8 source of energy and drive and -- and really showing
9 positive work. So we wanted to make them the center --
10 our grantees the center of this work. And so what we do
11 is, we've done this except for currently, the last one we
12 did was in March, but once a month we would have lead-safe
13 and healthy neighborhood build events in a jurisdiction
14 and -- and the local grantee would be the front end of it
15 where, you know, they would develop a day or two where we
16 would not only showcase and highlight the work of what the
17 grantees are doing in terms of lead-safe and healthy, but
18 also bring together the community at large because at the
19 same time we would have food bank distribution, we did a
20 lot of immunization of kids at the same time. And so it
21 really brought together everyone and really showed the
22 value of -- of all the work that was done in a particular
23 community to elevate that community, to help that
24 community, you know, to really start out revitalizing
25 these communities.

1 Next slide. So again, we started small and so, you
2 know, we -- when we do this work, we do about three to
3 five homes in a particular neighborhood and, again, I
4 talked about this early on, but it's that -- that first
5 home that really makes a difference in a neighborhood
6 especially when we've never been there before to really
7 bring folks together, not only -- not only the community
8 partners, but also all the surrounding partners so they
9 can see the work that is being done and also get excited
10 for expanding that work and also to get engaged. I mean I
11 think that is key, to not only engage them in the work
12 that we are doing but get them to understand, you know,
13 what -- in terms of protecting your kids and what needs to
14 be done in terms of, not only the work in the homes, but
15 also making those connections with health and health
16 providers to ensure that the resources are provided in the
17 neighborhood.

18 Next slide. As part of this work we always do a
19 listening session. So not only are we doing the work in
20 the homes but we also do a listening session so that we
21 can listen to what the community needs are. And you know
22 we always invite not only the local elected officials but
23 also community partners, you know, families, everyone so
24 that we can get an understanding of what their needs are
25 and even though -- even though, you know, we're

1 representing HUD, you know, I do feel like that since a
2 lot of people don't distinguish between HUD or EPA or
3 anybody else, they see federal government, that it does
4 allow us to take all that in and be able to reach out then
5 to the respective agency and let them know what we heard,
6 let them know what they're raising and their needs are,
7 and I always make it a point to go back to that
8 neighborhood a year later and be able to tell them what
9 we've done, be able to show them our progress, and I think
10 at the end of the day that has made a huge difference
11 because people feel like when they say something to us we
12 are actually listening.

13 Next slide. So the -- the key thing with the work
14 though too is also we want to combine it with other
15 events. We've done a ton of back-to-school events, we've
16 done health fairs, you know, we've done a lot more at one
17 time which engages the community a lot more than just
18 focusing on -- on the home that we're -- that we're
19 highlighting, but it -- it -- it should always be linked
20 to something else and some other services that the
21 community should receive, and it's always exciting because
22 you get more kids of course when you do a back-to-school
23 event or things of that nature. Although I will say when
24 I -- well, actually, I'll show you a slide first.

25 Next -- next slide. So this was me doing work -- I

1 actually did it with Rebuilding Together this time, but we
2 went into a whole neighborhood in Baltimore and this is me
3 fixing their back side -- back patio. You can tell this
4 is beforehand, it's not even level so it was a huge
5 walking -- huge walking trip hazard. And this was
6 something, you know, I wasn't representing HUD there, I
7 was just me, but this was over a two-day period where I
8 worked to really help, you know, help the family get out
9 and do more, you know, they didn't want to sit out, they
10 didn't want to walk outside because every time they walked
11 out you could tell the bricks were very uneven and all
12 this -- all the materials you see on the left were
13 donated. Everything was donated from Lowe's so all the
14 local Lowe's stores in the local Baltimore -- in the
15 Baltimore County area came out to -- to lend their hand
16 and, you know, it does say a lot when we're all there, you
17 know, collectively trying to make better communities.

18 Next slide. So this was me in Providence and we had
19 worked on the house behind us. This was a back-to-school
20 event so we hand out -- handed out a lot -- a lot of
21 backpacks and a lot of health information at the same
22 time. And you know, I -- I do think that even going to
23 this -- this one home -- and we did a tour of this one
24 home -- really makes a difference because a lot of time
25 the work that we do is, you know, in -- not in the

1 shadows, but not out in the forefront, and you know this
2 puts it front and center so that people understand that --
3 that this work, all of our collective work, can make a
4 huge difference.

5 Next slide. Just another home that we had worked on.

6 Next slide. So this was work that we did in Hennepin
7 County, Minnesota, and the two things that -- that I want
8 to show, on the left, so as -- as part of our work we
9 always like to go to the local school and so during this
10 day we did a lot of education sessions with the kids. We
11 also had them draw for us because we have a Healthy Homes
12 calendar that we do every year that is made from pictures
13 from kids just like this. So we have a calendar that
14 incorporates pictures made from kids and we have a lot of
15 other activities that we do with them and then right after
16 that event, to the right, then we had worked on this home
17 -- these are one of five homes and then we did work on the
18 outside, as well. So it just combines a day where if I'm
19 going to be in an area, even if I'm working with a grantee
20 or anything else, I want to be able to get into the
21 schools. I want to be able to do work on homes. I want
22 to be able to show people that just sitting in an office
23 in D.C. is not what we're about. That we really want to
24 be touching those and helping serve those in the community
25 that -- that need our help.

1 Next slide. And the only funny thing about this
2 event -- so -- so talking about immunizations from the
3 slides earlier, so in order -- so we had backpacks. So in
4 order to get your backpack you had to get all your shots.
5 Well, we didn't tell the kids that so, you know, they you
6 know, we got -- gotten their backpack and then said go to
7 another room then we gave them their shot. They weren't
8 -- they weren't very happy, but we -- we did over 350 kids
9 that day who -- this was in Harris County, Texas, sorry,
10 and they needed to have their shots before they went to
11 school so it was good that we were able to get all that
12 done, as well as the work that you see on the -- on the
13 right.

14 Next slide. Now this was in -- in Utah and we -- we
15 had a -- so not only for the kids, we had a whole bunch of
16 demonstrations with kids. We gave out bike helmets, but
17 also we did a lot of wellness screening; these are for the
18 parents, so just want to make that clear that we do work,
19 not only for the kids, but also for the parents.

20 Next slide. And I'll just skip over.

21 Next slide. And some more of the same work.

22 Next slide. So one of the things we're also doing is
23 work with the National League of Cities to work with -- to
24 try to develop a mayors' challenge. So this is really,
25 you know, catalyzing buy-in from leadership and working

1 with an organization like National League of Cities to
2 help refocus the work on lead has been key. So we're
3 working with them on creating a Mayors' Action Challenge.

4 Next slide. And more of the same thing. So we're
5 also, not only working with NLC on doing the mayors'
6 challenge, but we're also bringing together a panel of
7 experts. So when we go into an area, we can bring a panel
8 of experts for people to understand what successes other
9 people have had and how they've done it so that they can
10 emulate that as best they can because not everything works
11 in every area, but at least gives them an idea of what
12 we've tried and has worked in the past. I think that is
13 my last slide. And I think I'm almost out of time. Yep,
14 that is.

15 **MS. RUCKART:** Yes, thank you, Matt. That was really
16 insightful and I think that'll really help shape our
17 conversations later this afternoon. We do have two
18 minutes until break so maybe we could have one question
19 and then we could circle back if there's any follow-up
20 questions during our facilitated discussion. So Jana, has
21 anyone raised their hands?

22 **MS. TELFER:** I don't see any hand raising right at
23 the moment, nor do I have any text messages so I think the
24 idea of putting this discussion into the afternoon session
25 may be very prudent.

1 **MS. RUCKART:** Okay. Thank you. And at that time, we
2 can also circle back to the EPA question for Jeanne. She
3 let me know that she had inadvertently dropped off but she
4 knew there was a question for her so we can address that
5 during the afternoon sessions. So given that it's just
6 about 12:14 and our break is scheduled for 12:15, let's
7 break for lunch and then report back promptly to begin at
8 12:45 with the BLRV workgroup update. So thank you and
9 enjoy your lunch.

10 (Lunch break, 12:14 till 12:45 p.m.)

11 **BLRV WORKGROUP UPDATE**

12 **MS. RUCKART:** Okay, good afternoon. I hope everyone
13 had a good lunch break. It's 12:45 so we're going to get
14 started back up, and our next presentation is from Dr.
15 Jill Ryer-Powder and she is the chair of the BLRV
16 workgroup and she'll be giving us an update. I know we're
17 all very anxious to hear what you have to say. Jill?

18 **DR. RYER-POWDER:** Yes, can everybody hear me? Am I
19 okay?

20 **MS. RUCKART:** Yes, I can hear you. Thank you.

21 **DR. RYER-POWDER:** Wonderful. Thank you so much for
22 the -- for the introduction. So I'm just going to be
23 giving a short update on the blood lead reference value
24 workgroup. I was honored to be appointed chairman of this
25 committee so hopefully I can come through and -- and

1 produce good work for everybody. So if I can have the
2 first slide, please.

3 So the -- the charge of the blood lead reference
4 value workgroup in -- in -- in three distinct bullets.
5 The Center for Disease Control currently uses a blood lead
6 reference value of 5 micrograms per deciliter to identify
7 children with blood lead levels that are higher than most
8 children; that is children in the highest 2.5 percent of
9 blood lead levels. So you know, it was talked about a
10 little bit earlier, but this is not a -- a clinical value,
11 it's a reference value and the reference is in comparison
12 to other children in the United States.

13 So the current blood lead reference value is based on
14 the 97.5th percentile of the National Health and Nutrition
15 Examination Survey or the NHANES blood lead distribution
16 in children ages one to five years using data from 2007-
17 2008, and 2009-2010. So the CDC is charged with assessing
18 the NHANES data every four years using the two most recent
19 survey cycles of available data to determine if the blood
20 lead reference value should be updated. So the charge of
21 the blood lead reference value workgroup is to provide
22 recommendations for establishing or re-establishing a
23 blood lead reference value for the Center for Disease
24 Control's National Center for Environmental Health via the
25 Lead Exposure and Prevention Advisory Committee.

1 Next slide, please. So the members of the blood lead
2 reference value workgroup include Dr. Ginger Chew, who is
3 the Designated Federal Officer and Health Scientist,
4 Division of the Environmental Health Science and Practice
5 for the National Center for Environmental Health and --
6 and Ginger has been incredibly helpful in helping me to
7 implement the meetings and -- and run the meetings and
8 make sure all the members have the information they need
9 so we can conduct effective and productive meetings.
10 Other members are Wallace Chambers, Nathan Graber, Bruce
11 Lanphear, Julianne Nassif, Amanda Reddy, Mark Werner and -
12 - I don't want to mess up this name, but Nsedu
13 Witherspoon. So at -- at --

14 **MS. RUCKART:** Excuse me, Jill. She goes by Nsay
15 (ph).

16 **DR. RYER-POWDER:** Nsay, okay. I'm sorry about that.
17 So I'm honored to be among this group of people that are
18 incredibly bright, incredibly bright scientists and --
19 and, yeah.

20 So next slide, please. So the progress of the blood
21 lead reference value workgroup so far, we have had three
22 virtual meetings. They were in every two weeks where we
23 were covering the history of the blood lead reference
24 value, the purpose and the charge of the workgroup, so you
25 know, exactly what are we supposed to be doing. We were

1 making decisions regarding what the end product would be
2 and -- and we decided that's going to be a report of the
3 recommendation to LEPAC and to develop a timeline for the
4 completion of the report.

5 So we -- we -- we did all of that. We have completed
6 and reviewed an outline for the report for the
7 recommendation so that outline is pretty much finalized
8 and -- and we wanted to make sure we got in all of the
9 points and issues that we wanted to get into that report.
10 We identified areas that needed further research before
11 completion of the report and -- and that was actually Dr.
12 Jones gave us -- he gave us a presentation two weeks ago,
13 the same presentation that we got today, so that was one
14 of the areas that needed further resource -- research
15 before completion of the report and now we have those
16 results so we can incorporate them into the
17 recommendation. And then we assigned sections of the
18 report to the workgroup members so they can start filling
19 in those sections and -- and we can come up with our
20 product which is the report.

21 So next slide, please. So the work in progress, like
22 I said we met on October 20th and Dr. Jones gave us the
23 presentation regarding laboratory performance at low blood
24 lead concentrations. We're going to continue to research
25 specific areas necessary to complete the report. You

1 know, two of the big ones are how -- how is this -- or how
2 has the blood lead reference value been utilized or
3 implemented or how are people using it, how are -- how are
4 doctors using it, how are states using it. So I think we
5 need to do a little more work in that area and then, of
6 course, write each section of the report.

7 We have a -- a due date for the draft report by
8 November 13th at which point everybody's going to
9 circulate their parts of the report and we'll put it all
10 together. On November 17th, we're going to review the
11 draft, figure out our editing protocol and we'll update
12 the timeline to estimate the date for the completion of
13 the report. So -- so that's where we are right now. And
14 -- and, you know, the more -- I don't want -- really want
15 to do the spoiler alert, but -- but the spoiler alert is,
16 we're -- we're going to make the recommendation of 3.5
17 micrograms per deciliter. A lot of work was previously
18 done to support this recommendation so I think it's our
19 job to try and strengthen the -- the recommendation and
20 all the issues surrounding the recommendation. So that's
21 it. Thank you.

22 **MS. RUCKART:** Okay. Thank you so much. We do have
23 some time to take some questions. So Jana, would you
24 please lead that?

25 **MS. TELFER:** All right. Thank you. Welcome back

1 everyone. And as always if you have a question or
2 comment, please raise your hand in the hand raising or
3 send me a chat through the chat box and we will be happy
4 to call on you right away.

5 **MS. RUCKART:** Also, I'd like to mention we have a
6 really good amount of time. We're not scheduled to do our
7 public comment until 1:30 so we would also have time to
8 take any questions for Matt from the HUD presentation from
9 this morning and also circle back to that question for
10 Jeanne from EPA. Thank you.

11 **MS. TELFER:** Okay. I'm not seeing any signal that
12 there's a comment or question on this presentation. So
13 let's start at the beginning, and Pat Breysse had inquired
14 what sort of quality control is used for environmental
15 measurement of lead, such as x-ray fluorescence. And
16 Jeanne Briskin, if you have a comment on behalf of EPA,
17 that would be super.

18 **DR. BREYSSE:** Just -- just, just real clear, I think
19 that question came from Howard, I was just restating it.

20 **MS. TELFER:** Sorry, thank you.

21 **MS. BRISKIN:** Hi, this is Jeanne Briskin from EPA.
22 I'm going to have to get back to you on the answer to that
23 particular question. I know that we have been working,
24 doing a fair amount of analysis -- analytical work, but I
25 don't have the answer to that particular question. I can

1 get back to you offline about that or -- or provide it,
2 you know, to be added as part of the record later.

3 **MS. TELFER:** Thank you very much. We appreciate
4 that. Howard Mielke, you had a comment or question on
5 Matthew's presentation. Would you like to put that
6 forward right now? (no response) Okay. And then if
7 people have gathered their thoughts any further, sometimes
8 a little difficult to do after lunch, if you do have a
9 question or comment on the -- the blood lead level value
10 subcommittee or workgroup would you please indicate,
11 otherwise I will send this back to Perri. (no response)
12 Okay. Perri, I'm going to hand the mic back to you, if I
13 may, and we can always address things that may come up in
14 the further discussions this afternoon because I'm sure
15 these will still be relevant topics. Thank you all.

16 **MS. RUCKART:** Well, we are significantly ahead of
17 schedule for the public comment and we do need to adhere
18 to the times there, 1:30, in case our public commenters
19 are not available yet, so if there are no questions
20 from --

21 **DR. BREYSSE:** Perri, can I jump in?

22 **MS. RUCKART:** Yes, please.

23 **DR. BREYSSE:** So maybe a little bit of process might
24 be in order -- discussion. So we're looking to the
25 workgroup to make a recommendation on the blood lead

1 reference value issue we talked about. And once we get
2 that, we'll raise that issue with the full FACA and we'll
3 ask for your endorsement or -- or not of that going
4 forward. So we will be asking you -- you guys to give us
5 a recommendation, you know, it'll be guidance through us,
6 but, you know, the purpose of the FACA is for us to make
7 sure we have as broad inquiry as possible. So I just
8 wanted to alert people to that. And, you know, at that
9 point you'll be able to just kind of, I guess, vote in
10 support of it, vote against it or -- or abstain like we
11 would in any -- any kind of voting setting going forward.
12 So I just want to make sure people keep that in mind.

13 **MS. RUCKART:** Thank you, Pat. I do see that Jeanne
14 has her hand raised. So let's go to Jeanne and then we'll
15 see if any more members would like to speak. Thank you.

16 **MS. BRISKIN:** Pat, I just wanted to be really crystal
17 clear about the reference level of 3.5 that was going to
18 be recommended. Is that based on national statistics and
19 then is the working group's recommendation based on health
20 outcome? I know that the CDC had articulated the
21 reference level on national statistics. Is the working
22 group's recommendation based on health outcome? Thank
23 you.

24 **DR. BREYSSE:** I'll -- I'll start and then -- then
25 others can chime in. So the reference value is -- is

1 based on, you know, the statistical determination of the
2 distribution of the NHANES value. And right now our --
3 our standard procedure would be to look at the data and
4 adjust the reference value based on those numbers to 3.5.
5 So we asked the workgroup to, first of all, assess whether
6 that's still an appropriate method for establishing our
7 reference value. If so, to -- to -- to recommend that we
8 reduce it to 3.5 which is where it would be right now
9 based on -- on the NHANES data. So does that answer your
10 question and if anybody else would like to add in, jump
11 in, feel free.

12 **DR. RYER-POWDER:** Yeah. So this is -- this is Jill.
13 Like -- like I was saying before, so the -- the really
14 important point is what is the blood lead reference value
15 used for and so, no, it is not a health-based level, but
16 we know, I mean, all of -- all of the data and the
17 evidence said that there -- says that there's no safe
18 level. So you know, if the use of the blood lead
19 reference value is to let people know that a child is at a
20 higher level than most of the kids in the United States,
21 and we know that there's no safe level in the -- safe
22 blood lead level for lead, that sort of incorporates the
23 health-based aspect of it so, you know, hopefully in this
24 -- hopefully in this report we would relay the information
25 that -- that 3.5 is not a safe level, but it's a level

1 where there should be some -- some kind of action taken to
2 inform those with the higher blood lead level that some
3 action needs to be taken. There is an exposure occurring
4 or somehow their blood lead level is changed. So
5 hopefully in answer to your question of whether there's a
6 health aspect to it, yes, there is, but it's not the basis
7 for the blood lead reference value.

8 **MS. BRISKIN:** Thank you very much for the
9 clarification.

10 **CDR LEONARD:** This is Monica Leonard. I also want to
11 chime in there. As Jill mentioned, it -- it definitely --
12 it enables healthcare providers and public health
13 professionals to identify the most highly exposed children
14 for intervention and for follow-up. So -- so, thank you.

15 **MS. TELFER:** Thank you everyone. Karla Johnson, you
16 had a comment? And remember to unmute, everybody. Okay.
17 I'm -- Karla? (no response) All right. Perri, I'm not
18 seeing any more hands or messages. Over.

19 **MS. RUCKART:** Okay. Well, as I was saying before, we
20 really need to wait till 1:30 for our public comment
21 period. We need to adhere to the agenda for that since
22 the three people who would like to make a public comment
23 may not be on now. There might be other people joining
24 specifically for that segment. So given that I guess we
25 can move on to the facilitated discussion, just begin that

1 early and our first discussion was going to be on
2 effective services and best practices regarding lead
3 screening and the prevention of lead poisoning. So Jana,
4 would you please go ahead and facilitate that session?

5 **MS. TELFER:** Sure. Before we do that, Matthew Ammon
6 had his hand in the air just as I was saying that we were
7 going to move back to you. So I apologize for not getting
8 that in quickly enough. Now, would you care to go ahead?

9 **MR. AMMON:** Yeah. I was just going to say that for
10 our -- our lead hazard control grantees, I mean, the 3.5
11 is important because it would be an environmental
12 investigation in the home and then our follow-on lead
13 hazard control work. So in many areas of the country
14 that's how, you know, the one moves to the other in terms
15 of how that number triggers a -- a set of actions in
16 response to that. So that -- that's what our response
17 would be from our lead hazard control grantees using that
18 number for additional environmental investigations and
19 remediation.

20 **MS. TELFER:** Super. Thank you very much. So as
21 we move into the facilitated discussion, effective
22 services and best practices regarding lead screening
23 and prevention of lead poisoning. Jill, did you have
24 a comment before we go there?

25 **DR. RYER-POWDER:** Yeah. Yeah. Just -- just one

1 more thing for -- or response to -- to Matthew. Is
2 there somewhere like on the website or something like
3 that that tells how HUD uses the blood lead reference
4 value?

5 **MR. AMMON:** We have a chapter in the guidelines
6 that talks about -- we've updated it and whenever EPA
7 -- I'm sorry -- whenever CDC has updated the
8 recommendation, it sorts of triggers a set of edits to
9 our documents, whether that is the HUD guidelines or
10 whether that's the Lead Safe Housing rule, you know,
11 we've -- we've said it already that anytime there is a
12 trigger in the change that it would have a cascading
13 effect for our lead safe housing rule. We don't
14 actually have to update it anymore for a particular
15 number, we just state that when CDC updates their
16 recommendation then that automatically would be
17 followed by the work in the Lead Safe Housing rule.

18 **DR. RYER-POWDER:** And -- and does it specifically
19 say blood lead reference value?

20 **MR. AMMON:** So we -- we talk about that, again,
21 as -- yeah, I mean, it talks about that. It does
22 mention that and it also mentions, again, that as CDC
23 up -- if they update their recommendation, then the --
24 it would trigger -- doesn't trigger a hard recoding of
25 edits to the Lead Safe Housing rule, but it just

1 triggers a set of actions that those serving --
2 assisting housing residents would have to do.

3 **DR. RYER-POWDER:** Okay. Okay. And -- and I'm
4 wondering if -- if maybe if the facilitator of the
5 meeting could send a link out with those guidelines
6 because that would be really helpful to put into our
7 recommendation as to how it's used by HUD.

8 **MS. TELFER:** Thank you all very much. We will make
9 sure you get that. I'm sure everyone is familiar with
10 technical difficulties. I've had my share of those
11 challenges this week and Karla was unable to -- to get
12 through so that she could ask her question verbally. So
13 let me see if I can restate that for her. So the question
14 is of the workgroup, what, if any, financial assistance
15 can public health agencies expect or hope for?

16 **DR. RYER-POWDER:** This is Jill. I -- I have no
17 answer to that question or I don't know the answer to that
18 question.

19 **DR. BREYSSE:** Monica? Monica, can I say a few words
20 about the -- about our -- our grantee program and the
21 resources required of the states about how to -- how to
22 manage their blood lead -- lead programs?

23 **CDR LEONARD:** Yes.

24 **DR. BREYSSE:** Recognizing that the adopting of a --
25 of a reference value is -- is a state decision. It's a

1 guideline, it's non-regulatory on our part, but -- but the
2 states do get resources and maybe Monica you can share
3 those?

4 **CDR LEONARD:** Yes. Hi, everyone. Good afternoon,
5 this is Commander Monica Leonard. Wanted to just add some
6 additional discussion points and thank you, Pat, for the
7 opportunity. I -- yes, we -- we currently fund 53 state
8 and local health departments for childhood lead poisoning
9 prevention activities across the country. In particular
10 one area that we focus is case coordination and -- and
11 follow-up of services, linkages to care and so with that I
12 wanted to -- Pat is correct -- recommendation is indeed
13 just a recommendation. It is currently 5 micrograms per
14 deciliter and we are non-regulatory and we do have a
15 variety of jurisdictions that we currently fund within the
16 53 who have not yet all adopted the current 5 micrograms
17 per deciliter blood lead reference value. And so -- and -
18 - and -- and, again, I just wanted to weigh in on our
19 current status in terms of where we are with our funded 53
20 state and local partners currently. Thank you.

21 **MS. TELFER:** Okay. Any other comments or questions
22 on this?

23 **MS. RUCKART:** Jill, your hand is still raised. Did
24 you have any additional comments?

25 **DR. RYER-POWDER:** Oh, I did not. Sorry about that.

1 I -- I unraise it -- let me see. Oh --

2 **MS. TELFER:** Yes, you did, thank you.

3 **DR. RYER-POWDER:** Okay. Sorry about that.

4 **FACILITATED DISCUSSION:**

5 **EFFECTIVE SERVICES AND BEST PRACTICES REGARDING LEAD SCREENING**
6 **AND THE PREVENTION OF LEAD POISONING**

7 **MS. TELFER:** Okay. Then if there is no further
8 comment on this, then let's move ahead with the question
9 about effective services and best practices regarding lead
10 screening and the prevention of lead poisoning. We have
11 about 20 minutes and then I think we will be taking a
12 break for the -- the public comment segment and then we
13 will come back to it. For both of these discussion
14 sections, if everybody is amenable with this, I'll turn
15 first to our committee chair and then for the first one we
16 will just go through people in the order in which you're
17 listed alphabetically on the -- on the membership list.
18 So let's begin with Matthew Ammon for -- to help us frame
19 up this question and open the discussion. Matt?

20 **MR. AMMON:** Yes, certainly. I mean, for -- for us in
21 -- in the way I've always looked at it to try to quote,
22 "make it easier," you know, not setting up new networks,
23 to try to accomplish, you know, increased screening, but
24 you know, look within existing structures and what exists
25 already. And then, of course, look for some new

1 innovations and, you know, we had mentioned about
2 screening during wellness checks. You know, obviously,
3 the discussion about why it's so difficult now during
4 COVID to do testing and -- and hoping it'll ramp up after
5 this. But I'm always looking at, you know, increasing
6 screening through existing structures that already exist.

7 So you know, for me in the communities I've been in
8 looking at the local health clinics that are within many,
9 many neighborhoods around the country and even -- even, I
10 think I showed the picture that one where we were doing
11 work in Harris County and in the specific community I was
12 working in there was a park and then the elementary
13 school, and then the house and then the actual clinic was
14 right there at the end of the park and, you know, the --
15 the -- the clinic, you know, I -- it seemed to be, you
16 know, needed to be a little more -- to have a little more
17 encouragement to actually go out into the neighborhood and
18 actually join what we were trying to do which I found
19 strange in doing blood lead screenings.

20 And you know I think tapping in, of course, to that
21 resource and -- and making sure that -- that that is seen
22 as a resource in many communities around the country,
23 which I know it is, it just was odd that we were in a
24 particular area where they weren't really engaged. And
25 again that's an existing structure that exists in a

1 community, as well as what we're finding around the
2 country has worked really well for screening is the use of
3 community, you know, health workers. And doing what we
4 can to tap into those resources around the country to get
5 more kids screened.

6 You know screening is, obviously, a -- a critical
7 part to know where we need to be providing resources. But
8 -- but in -- in many cases too, you know, we want to be
9 able to take that information and then go beyond that and
10 -- and work and identify homes where kids have not been
11 poisoned yet, of course, but using it as a great marker
12 for us to identify areas and specifically neighborhoods
13 that we really need to go in and provide more investment
14 in.

15 **MS. TELFER:** Sorry. I muted. I like to think that
16 that should be my default position. Thank you very much.
17 Let's move first then to Jeanne Briskin and I will remind
18 you that we will ask you to contain your comments to about
19 three minutes because that will still give us time for
20 discussion and afterwards and -- and some ability to
21 comment on each other's remarks. So I will be running a
22 timer on everybody, but I'll try to be gentle about that.
23 Jeanne? And everyone remember to unmute.

24 **MS. BRISKIN:** Can you hear me now?

25 **MS. TELFER:** Yes, ma'am. Thank you.

1 **MS. BRISKIN:** Okay. Great. So I -- I'd like to
2 focus my comments on the importance of continuing
3 educations for medical practitioners, pediatricians and
4 others so that they understand what the results of the
5 lead screenings are. There -- there is little continuing
6 education or basic education for newly trained
7 pediatricians about children's environmental health. And
8 the pediatric environmental health specialty units which
9 are co-funded by ATSDR and EPA are one of the places where
10 that type of continuing education is available.

11 Sometimes pediatricians, in my personal experience,
12 don't always know how to interpret the results of a blood
13 lead level and whether a particular level is of concern or
14 not. I think that some pediatricians in some places are
15 somewhat behind the times about what blood lead levels of
16 concern are when they're seeing individual patients. And
17 so I just want to support continuing education for clinics
18 -- clinicians of all sorts, particularly as blood lead
19 levels of concern continue to drop in -- in the screening
20 sense to get closer to our goal of zero so that they can
21 appropriately educate and counsel their patients. Thank
22 you.

23 **MS. TELFER:** Super. Thank you very much. Wallace
24 Chambers, we'll move to you.

25 **MR. CHAMBERS:** I was just unmuting my mic. Just to

1 be brief. I don't want to take up too much time. Matt
2 said a lot of things that I want to echo, but I think for
3 us from the local health department standpoint it's just a
4 matter of resources. We just need greater resources to
5 give to the community. I think we also need to find a
6 better way to address the social determinants --
7 determinants of health that a lot of the residents face
8 and establish a way to get into the communities better
9 instead of having the patients come to us. So that's all
10 I wanted to say and I wanted to be brief. Thank you.

11 **MS. TELFER:** All right. Thank you very much. We'll
12 move to Tiffany DeFoe.

13 **MS. DEFOE:** Hello. So you know, in -- in this area
14 it was mentioned earlier that although it's not one of the
15 major sources that we're aware of in the home -- that
16 occupational take-home is one of the contributing sources
17 and, you know, if -- if we need -- if we're going to work
18 -- move -- work towards eliminating all the sources that
19 we can, that's one we need to address.

20 And in terms of developments since our last meeting,
21 we have been -- we at OSHA have been in touch with the
22 folks at ABLES with NIOSH to develop some ideas around how
23 we can improve surveillance and the use of surveillance
24 kind of across the home level, you know, the childhood
25 surveillance and the adult surveillance systems. So

1 that's an area that we're actively discussing how we can
2 better kind of coordinate those systems and make use of
3 the information to -- to use red flags about issues in the
4 workplace to maybe be able to target and identify issues
5 in the homes of -- of workers and other places that they
6 go and -- and vice-versa. And there'll be a little more
7 to say about that under the research topic. The funding
8 there has been an issue, as well, just in terms of the
9 strain on funding for states to maintain their
10 surveillance programs. That's it.

11 **MS. TELFER:** All right. Thank you very much. Let's
12 move next to Nathan Graber, if we may.

13 **DR. GRABER:** Okay. So I'll -- I'll do my best to
14 keep brief but I -- I have a hard time doing that. So I
15 -- I --

16 **MS. TELFER:** I'll help you.

17 **DR. GRABER:** Maybe I can use some of Wallace's time.
18 I'm not sure. So what I'd like to -- you know, this is a
19 very complex, you know, question and I think everybody on
20 the panel agrees with that. I'm going to try to stick to
21 my perspective as a pediatrician on the ground. And, you
22 know, first we heard a presentation earlier today and I
23 think it's really terrific. We should be screening
24 environments and address housing issues and social
25 determinants of health and I -- I can't reiterate that

1 point any more. You know, I -- I -- I'm going to -- I'm
2 just going to, you know, keep pushing that every time we
3 try to have a conversation.

4 But when it comes to the blood lead screening, you
5 know, think about it like a feedback loop for quality
6 improvement. So if -- if we, as the pediatricians, can
7 obtain good blood lead levels at the right times in -- in
8 the right kids, and that information is very useful for
9 the health departments and the health departments have
10 their surveillance data which can provide feedback, not
11 just to the pediatricians, but to all of the partners
12 involved in addressing lead hazards. And so I think that
13 brings us to, you know, just to kind of a couple of
14 issues.

15 And one of them is, how do we, you know, improve
16 blood lead screening rates in -- in the pediatrician's
17 office and based on our experience, it -- it really
18 increases our compliance with requirements for universal
19 screening and getting blood lead levels when we can do so
20 in the office setting. And we know that, you know,
21 LeadCare II for us has been somewhat of a compromise in
22 terms of getting accurate numbers, but we know it's a good
23 test for screening and assur -- screening and assuring
24 that the kids who are at the highest exposures are -- are
25 identified and as we lower the blood lead level reference

1 value and how that is used, we -- we -- we -- we see also
2 that then addresses some of the housing issues which, you
3 know, for the kids who are already exposed, you know,
4 it'll reduce their exposures going on and for kids who
5 will live in that environment in the future, it'll --
6 it'll break that -- that cycle of exposure. But I -- I --
7 I -- the -- the LeadCare II is one way to do it and, you
8 know, with -- with reduced levels of the blood lead
9 reference value, if we use that in a -- in a more clinical
10 way, we're going to need better technology in the office
11 setting in order to do that. I'm -- I'm sorry that when
12 we had the -- Robert Jones was giving his presentation
13 earlier I had a little something at home that was a little
14 distracting so I couldn't ask him a specific question, but
15 I'll try to do that on the workgroup meetings that we have
16 following with the blood lead reference value.

17 The other thing is, you know, venous draws, you know,
18 they can be technically more difficult than finger sticks
19 and -- and are considered more traumatic whether they are
20 or not, is -- becomes sort of irrelevant because they
21 certainly are perceived as such, and we know we do a good
22 job of getting those finger sticks in kids, especially the
23 young ones, with as little trauma as possible. But, you
24 know, when we -- when we have the -- when we don't have
25 the LeadCare II, we -- we see an improvement with having a

1 phlebotomist who can actually come into the office. And I
2 think what -- what's -- what's really helpful for us is
3 improving communication both between the, you know, the
4 pediatrician and the health department and what happens
5 with case follow-up and case management ensuring that
6 those houses are -- lead hazards in the home are addressed
7 and that we do our appropriate follow-up testing.

8 Another partner in there, of course, is the insurance
9 companies which push us also to meet their quality
10 requirements and quality metrics, but and also in that
11 communication has to be very clear guidance with
12 pediatricians as to what is expected for us to do with a -
13 - with a -- a blood lead level results. And when it's --
14 when it's very, very clear, we can automate that into our
15 processes in the office and it can be something that's
16 done more routinely as opposed to something that's
17 particular for a specific -- very specific cases.

18 I wanted to make another point which has to do with
19 the fact that, yeah, we do, in New York state anyway, we
20 have universal blood lead screening at ages one and two
21 and in other jurisdictions it may only be the Medicaid
22 population that receive that universal blood lead testing.
23 For the rest of the population one of the things that we
24 have is the risk factor questions and so a question I'll
25 throw out there and this is my final point, is, what --

1 what happens with the validity of those risk factor
2 questions as we look to lower and lower blood lead levels
3 for deciding follow-up testing interventions?

4 **MS. TELFER:** Super. Thank you very much. It's --
5 speaking as someone who works for the federal government,
6 it's always enormously helpful to us to hear from somebody
7 who is in a frontline setting. So thank you for
8 contributing those powerful thoughts. Can we move to
9 Karla Johnson, please?

10 **MS. JOHNSON:** Can you hear me?

11 **MS. TELFER:** Yes, ma'am. Happy to do so.

12 **MS. JOHNSON:** Okay. Well, I spent like the last, I
13 don't know how long trying to figure out what was going on
14 with my -- and why you couldn't hear me. So I missed the
15 question. What is it we're supposed to be answering?

16 **MS. TELFER:** All right. And if you like, we can
17 circle back to you. So just let me know how quickly you
18 can assemble your thoughts. The question is effect --
19 about effective services -- or discussion is about
20 effective services and best practices regarding lead
21 screening and the prevention of lead poisoning.

22 **MS. JOHNSON:** Okay. Yes, circle back.

23 **MS. TELFER:** Yes, ma'am, we'll do.

24 **MS. RUCKART:** Excuse me, Jana, while we give Karla a
25 minute or so to think about that, I just wanted to mention

1 that Robert Jones is on the call and he's happy to answer
2 any questions. I think that there were just some points
3 that were directed toward Robert.

4 **MS. TELFER:** Why don't we do that now because we are
5 coming up on the public comment section so if Robert is
6 able to go ahead, this might be a timely point at which to
7 do that.

8 **DR. JONES:** This is Robert, I'm here.

9 **MS. RUCKART:** Nathan, I believe you had some points
10 that you were hoping that Robert could address. Would you
11 mind just briefly summarizing those? Thank you.

12 **DR. GRABER:** Oh, yeah. I was just -- it was just
13 like where do we see the technology going for
14 point-of-care testing? Is it a possibility -- is there
15 any potential or possibility that we'll see more accurate
16 testing machines in the near future that we can use in the
17 office setting?

18 **DR. JONES:** I think there is. I don't know what the
19 timeline is. I have heard rumors that the company is
20 working on a newer device which hopefully will have a
21 better limit of detection, but they've not given any
22 official notification or timeline to that, I've just heard
23 rumors. So let's hope so especially if CDC does lower the
24 blood lead reference value; there will be a huge sort of
25 emphasis or demand for a point-of-care instrument with a

1 lower limit of detection. Sorry I can't give you a
2 definitive answer on that, but I'm hoping the instrument
3 company does come out with a newer, better instrument.

4 **DR. BREYSSE:** Robert, this is Pat. I -- if I could
5 follow up on that, analytically speaking, you know, Nathan
6 raised the issue that, you know, a venous draw,
7 particularly on a young child, you know, can be a problem.
8 Is there enough blood in a finger stick and are there ways
9 to -- to ship a finger stick blood sample to a laboratory
10 for an ICP-M analysis -- ICP-MS analysis or do you have to
11 do a venous draw if you want to do ICP-MS?

12 **DR. JONES:** Oh, there's plenty. Usually, most of the
13 recommended amounts of blood for a finger stick collection
14 is around 200 microliters. Now, there's -- there's
15 several finger stick capillary devices that collect
16 anywhere from 100 to 200 microliters of blood in an EDTA
17 anticoagulated vial. We routinely have worked with
18 several groups and I think we only use between 25 to
19 50 microliters of blood; most groups use that. So even if
20 the lab in the, you know, three or four mls of venous
21 blood, they're still only using 25 to 50 microliters of
22 blood for an ICP mass spec analysis or a graphite furnace
23 analysis.

24 **DR. BREYSSE:** So you don't have to do a venous blood
25 draw if you want to do a more sophisticated analysis?

1 **DR. JONES:** No, but just always keep in mind that
2 with finger stick draws, you do have a higher probability
3 for contamination just from the finger itself. But the,
4 you know, you have plenty of blood to do ICP mass spec or
5 graphite furnace analysis by most methods I'm aware of.

6 **DR. BREYSSE:** So have -- have we ever written up
7 protocol for -- for a clinical setting that if they wanted
8 to do it that way, they could follow? And would there be
9 an interest in doing that?

10 **DR. JONES:** I don't think we've written up a protocol
11 for that, but we could think about writing up a protocol
12 for that.

13 **DR. BREYSSE:** Nathan, do you think that would be
14 helpful in some cases?

15 **DR. GRABER:** So I -- I just want to reiterate that
16 there's a higher risk for contamination when you do it
17 with a finger stick and we find that acceptable when we're
18 doing a screening test, but I think for confirmatory blood
19 lead levels we'll still want the venous and in those cases
20 which are, you know, less and less common over time but
21 still, you know, they're regular enough that we have to do
22 them. I -- I think, you know, we can get that venous
23 blood lead level done and I think we should. But I think
24 it's for that, you know, screening hundreds and thousands
25 of kids then for that it's -- it's really -- the finger

1 stick which, you know, always has that risk of
2 overestimating the -- the blood lead level is a better
3 option.

4 **DR. JONES:** The other nice advantage of the LeadCare
5 devices, or LeadCare II, is if you do get a higher level
6 from a finger stick and you test it immediately, then you
7 have a chance to either immediately collect a venous
8 sample for confirmation or collect, try to clean the
9 fingers better and do another finger stick analysis. I
10 mean, we don't want to be sticking the kids that much, but
11 I'm just telling you the -- the possibilities.

12 **DR. GRABER:** The other thing is that it's, you know,
13 it's more time consuming and requires more equipment so
14 that -- that's another thing to keep in mind for a busy
15 practice.

16 **DR. JONES:** True.

17 **MS. TELFER:** Thank you for this really interesting
18 exchange. Does anyone else have a question for Dr. Jones
19 that they might like to pose before we move to the public
20 comment? Okay. Robert, any closing thoughts on
21 technology and where we may be headed in the future with
22 regard to this topic?

23 **DR. JONES:** Just my only closing thoughts are we're
24 hoping that CMS approves the -- the criteria plus or minus
25 2.0 micrograms per deciliter or 10 percent. I think that

1 will help with some of this accuracy and precision issues.
2 We always encourage the laboratories to generate a much
3 better, accurate and precise method. We are always
4 available to talk to the laboratories to give them advice.
5 And we also will hope that the instrument manufacturer
6 will come out with a more accurate point-of-care device.
7 And if there's any follow-up questions, you're -- you're
8 welcome to contact me or go through the Lead Poisoning
9 Prevention Branch.

10 **MS. TELFER:** Thank you very much.

11 **MS. RUCKART:** Well, thank you so much. Oh, sorry,
12 Jana.

13 **MS. TELFER:** That's okay. We'll return afterwards
14 with -- and begin with Karla Johnson. Over.

15 **PUBLIC COMMENT**

16 **MS. RUCKART:** Yes. Thank you, Jana. So it's 1:30
17 and I do want to start the public comment period now. We
18 have 15 minutes allotted. We have three people who have
19 registered to let us know that they wanted to make a
20 public comment. And I will start with Tom Neltner, he is
21 from the chemicals policy -- he's the Chemical Policies
22 Director at the Environmental Defense Fund. So if Tom
23 could be unmuted. Thank you.

24 **MR. NELTNER:** Can you hear me?

25 **MS. RUCKART:** Yes, I can. Thank you.

1 **MR. NELTNER:** Yes. So I really want to appreciate
2 LEPAC and CDC and all the participants because this has
3 been a great discussion and it's -- it's just invigorating
4 to see that depth and that level of discussion so I
5 appreciate it. I wanted to make three quick points.

6 One is, EPA did an out -- EPA scientists did an
7 outstanding job of looking at the relative source
8 contribution of lead from food, soil and dust, which
9 includes paint, inhalation and water. And you know, I --
10 I want to make sure we're grounded in that evidence. It
11 showed that for -- for toddlers clearly paint is the
12 biggest source, but for most of the kids who don't live in
13 a home with lead pipes or lead paint, it's food. And it's
14 enough that FDA has prioritized getting lead -- reducing
15 the levels of contamination in food and it's not just
16 those imports and spices. It's sweet potatoes and carrots
17 because as Howard mentioned it's in the soil.

18 For drinking water, it's young kids. It's kids that
19 we don't even test. It's kids that are around six months
20 because they're getting it in their infant formula from
21 drinking water, especially if they've got a lead pipe. So
22 EPA showed that lead pipes are the most significant source
23 for most of those kids because there's 10 million homes or
24 so with lead pipes. So I just want to make sure we frame
25 that right and ground it in the science, the excellent

1 science that EPA scientists did.

2 A quick comment on the Lead-Free Communities. I
3 share Howard's concern about having that initiative and
4 the way it's framed. I'm worried that it overpromises and
5 sets expectations that are unrealistic. As long as we
6 have lead in the soil, as Howard's shown all the time,
7 we've got to -- you're not going to get rid of it. So I
8 think you're -- I think it -- it sounds like you're just
9 thinking about paint as the source. And while it's most
10 significant, I think it loses track at the prevention
11 message.

12 So I really implore you to think about lead-safe and
13 to be clear about that. I still run into places that call
14 lead-safe homes say we've -- we've made the homes lead-
15 safe yet they're still drinking water through a lead pipe,
16 effectively a lead straw, and that just undermines our
17 messages. So the goal is to reduce the levels at every
18 place we can throughout the system.

19 Regarding the blood lead reference level. The
20 presentation this morning on the quality -- or the
21 accuracy and all that was just outstanding and the
22 discussion just a few minutes ago was great. And Matt, I
23 really appreciate your raising how it impacts HUD, but I
24 -- there are two gaps that are missing. FDA directly has
25 linked its interim reference level to the elevated blood

1 lead level, the CDC reference level. And they've said we
2 want to make sure that food contributes no more than
3 10 percent to that.

4 And that level we know that 90 percent of kids are
5 over that limit of 3 micrograms a day from food. So your
6 decisions here, not only affect the testing that's done,
7 but it also affects the -- real kids -- it affects kids in
8 food and it sets standards for that.

9 Also I'm -- FD -- EPA when you look at EPA
10 enforcement they almost always especially in the
11 Renovation, Repair and Painting Rule, focus on where's the
12 kid -- with -- did have -- did the kid have levels over
13 the interim -- or the lead reference level. So it has
14 implications for EPA compliance and enforcement.

15 And finally, I am concerned about the using business
16 decisions made by labs as a basis for defining what is an
17 accept -- how we're doing in meeting the progress. It
18 shouldn't have delayed us four years ago. I encourage us
19 to move forward now. Those laboratory business decisions,
20 while important, miss the point that we drive technology
21 by moving things lower. Nathan, you made the great point
22 of those levels are a feedback loop for quality
23 improvement. So overall I want to thank you for the
24 discussion and the opportunity to participate. Thank you.

25 **MS. RUCKART:** Okay. Thank you so much, Tom. And I'd

1 next like to move to Paul Moyer. He's the Chair of the
2 Association of Public Health Laboratories, APHL,
3 Environmental Health Committee, so if Paul could be
4 unmuted at this time, and you have a maximum of five
5 minutes. Thank you. Paul, are you there? We can't hear
6 you if you are speaking.

7 **MR. MOYER:** Can you hear me now?

8 **MS. RUCKART:** Yes, thank you.

9 **MR. MOYER:** Oh, great. Thank you. I'm sorry. Good
10 afternoon, thank you. My name is Paul Moyer, I'm with
11 APHL's Environmental Health Committee. APHL is the
12 membership organization comprised of state and local
13 governmental public health, environmental, agricultural
14 science and food safety laboratories. And our
15 environmental health committee focuses on the assessment
16 of potentially harmful environmental exposures to chemical
17 contaminants. APHL appreciates this opportunity to
18 provide comments regarding the National Center for
19 Environmental Health Board of Scientific Counselors'
20 recommendation to lower the blood lead reference level
21 from 5 micrograms to 3.5 micrograms per deciliter.

22 Many of our laboratories perform confirmatory blood
23 lead testing and work closely with public health lead
24 programs on the ground. APHL members have long been
25 involved in the fight against lead poisoning, striving to

1 provide the best science to protect the most vulnerable.
2 We strongly agree that no child should have to live with
3 an elevation of blood lead. As blood lead levels come
4 down nationally we understand the desire to push the
5 reference range levels lower; however, we're very
6 concerned that these best intentions may cause inadvertent
7 harm.

8 APHL is taking this opportunity to reiterate our
9 concerns and recommend the CDC evaluate the resource needs
10 and real-life clinical impact of the 3.5 micrograms per
11 deciliter reference level especially on under resourced
12 communities prior to making a final decision. Many blood
13 lead tests especially in rural and at-risk areas are done
14 with the point-of-care instruments that are not capable of
15 producing a sufficiently accurate result at the lower
16 3.5 microgram per deciliter reference value.

17 At this extreme, close to their limit of detection,
18 there's a huge amount of uncertainty at lower values,
19 points-of-care instruments have inherent technological
20 limitations and the sample contamination through lead and
21 the environment and even blood collection tubes becomes a
22 much more problematic issue. It cannot be assumed that
23 lowering the reference level will drive technology in
24 point-of-care instruments to achieve a report level that
25 is sufficiently low enough to account for the increased

1 analytical variability inherent at these low levels.

2 The analytical uncertainty associated with lower
3 blood -- this lower blood reference range will likely
4 result in significantly more specimens than should have
5 confirmatory testing, or this confirmatory testing will be
6 even more important at a lower reference range. This is
7 not always performed in clinical practice, or the lower
8 reference range may detect a number of children with truly
9 elevated blood levels that would not have been detected
10 otherwise,

11 there will be a concurrent rise in false positives.
12 Children that do not, in fact, have elevated blood lead
13 levels. False positive tests lead to unnecessary
14 additional blood tests and stress often along with time
15 and financial expenditures for families.

16 **MS. RUCKART:** Sir, they dropped your audio for a
17 second.

18 **MR. MOYER:** I'm sorry. Are you -- can you hear me
19 now?

20 **MS. RUCKART:** Yes, thank you.

21 **MR. MOYER:** Sorry. False positive tests lead to
22 unnecessary additional blood tests and stress often along
23 with time and financial expenditures for families, that
24 are very real and need to be considered. While states do
25 not need to follow the CDC recommendations, state and

1 local childhood lead poisoning prevention programs
2 responsible for environmental assessment and clinical case
3 management real -- realistically need to provide services
4 to a larger number of children.

5 APHL requests that the ability of programs to
6 continue serving those with the greatest exposure while
7 serving these additional populations detected at this
8 lower reference range needs to be considered before the
9 3.5 microgram per deciliter reference level is
10 implemented. If the new reference value is implemented,
11 APHL encourages the concurrent publication of materials
12 that explain to parents, providers and laboratories what
13 the results based on a new reference value represent.

14 We urge that additional funding be provided to
15 childhood lead poisoning prevention programs. You must
16 ensure that as resources are split between more families,
17 children in the most need are not left with fewer
18 resources and the public health laboratories are funded to
19 provide an additional testing capacity that will be
20 required. We ask that manufacturers consider certifying
21 their blood collection materials as having below a set
22 level of contamination so as to not interfere with the
23 blood level testing. We ask that the point-of-care
24 instrument manufacturers work under revised and more
25 stringent CLIA and FDA oversight to improve accuracy of

1 their instruments to meet any new recommendations. And
2 this concludes my comments. Thank you.

3 **MS. RUCKART:** Okay, great. Thank you so much, Paul.
4 And our next public commenter is Dave Jacobs. He's Chief
5 Scientist at the National Center for Healthy Housing, so
6 if Dave could be unmuted, please.

7 **DR. JACOBS:** Hi there, this is Dave Jacobs. Can you
8 hear me?

9 **MS. RUCKART:** Yes, thank you.

10 **DR. JACOBS:** Okay. I probably won't take all of my
11 five minutes and -- and these are just some thoughts that
12 -- from me. Over the years, I think the reference value
13 has been -- has become synonymous with a case definition.
14 And maybe these days we can only wrap our heads around a
15 single number, although as I think Pat pointed out
16 earlier, there are the numbers for a clinical management.

17 But as the committee deliberates on how the message,
18 what the reference value means, it seems to me that we
19 should examine whether that synonymous meaning, that is a
20 case definition as being the same thing as a statistical
21 construct which is a reference value should be the same.
22 So there is precedence for this. Some of you may remember
23 that in the early -- in the early '90s, '91 when CDC had
24 its last set of numbers, there were intervention levels
25 that were different. You know, 10 micrograms per

1 deciliter was -- indicated a need for community action,
2 15 was an environmental intervention blood lead level
3 based on, I guess, a couple readings and 20 was based on a
4 single blood measurement.

5 So -- so there is an opportunity it seems to me to
6 re-examine whether the reference value should be
7 synonymous with a case definition. I know they've --
8 they've come to mean the same thing, but I -- I submit
9 that they -- they are, in fact, somewhat different and --
10 and policies can be adopted to ensure that the public
11 understands exactly what that difference means.

12 So now, that's -- that's all I have at the moment,
13 but I look forward to the -- to the deliberations and I'm
14 hopeful that -- that we can gain some clarity and some --
15 some meaningful efforts to further reduce blood lead
16 levels in the population at large. Thank you.

17 **MS. RUCKART:** Okay. Thank you. I want to thank all
18 of our public commenters. I really appreciate you
19 registering in advance and sharing your thoughts with us.
20 And it's just about time to go back to the facilitated
21 discussion that we had started before the public comment.
22 So Jana, can we pick that back up, please?

23 **FACILITATED DISCUSSION (cont'd)**

24 **MS. TELFER:** Yes, happy to do so. So just as a
25 reminder, if anyone is like me and sometimes has

1 difficulty holding multiple thoughts in your head at the
2 same time, the discussion topic is effective services and
3 best practices regarding lead screening and the prevention
4 of lead poisoning. And we will turn first to Karla
5 Johnson. And Karla, thank you for your forbearance.

6 **MS. JOHNSON:** Oh, that's fine. You can hear me now,
7 I take it.

8 **MS. TELFER:** Yes, we can. Thank you.

9 **MS. JOHNSON:** Okay, great. So when I look at the
10 best practices or, you know, when we talk about the
11 reference value and -- and making sure that we're -- we're
12 addressing the children who are exposed, I think some of
13 the best practices that come to mind first when I think
14 about this is -- as someone who works in public health and
15 then I'll also -- I can't leave out the fact that I'm a
16 mother of a lead poisoned child and what I think might
17 have worked for me when my son was younger, but when we
18 look at some of the services out there for helping people
19 in their homes.

20 Again, I mentioned it's been a while since we've had
21 a HUD grant but one of the -- one of the -- and there's a
22 lot of money that HUD pours into communities for
23 addressing lead hazards and I think that's wonderful. But
24 one of the, I think, limitations with it, we were not
25 allowed to do abatement. So you would, you know, you --

1 you do a program, but it's going to -- the hazards are
2 going to come back again eventually.

3 So really making sure that we put our money where our
4 mouth is in terms of if we're going to say that this is
5 something that we need to -- to take care of that we need
6 to put the money up front and do that. There are some
7 jurisdictions and I can't think of any right now that --
8 that require blood lead testing before children enter into
9 school. I think that's good although that's a little bit
10 late on that -- on that spectrum, but certainly there's a
11 start because you might also catch younger siblings, as
12 well.

13 But one thing that we haven't been able to do here in
14 Indianapolis is provide certificate of occupancy which I
15 think would be great so that you make sure that the
16 landlords are able to know where the hazards are and have
17 some information on the housing and then take care of
18 that. As a mother, I think it's nice -- or as a parent --
19 to know that if my child is identified that you just don't
20 drop the ball when my child enters school.

21 That's a drumbeat that I just can't let go of because
22 I -- I, you know, I -- I dealt with that and so I think
23 that when we do identify these children it -- it feels
24 like at least that I -- and I can say this from a -- just
25 from a parent perspective, it feels like there's all the

1 emphasis on identifying children before they're poisoned.
2 We identify them, we give them a little bit of services
3 and then we send them on their way to -- to fend off life
4 the best way they can or to fend off the effects of the
5 lead poisoning the best way they can for the rest of their
6 lives and we don't offer the families the tools that they
7 need to help their children through middle school, high
8 school and beyond.

9 So if there's going to be some best practices, it
10 cannot be just to identify children and then give them a
11 few services before they enter school and then send them
12 on their way to tackle the rest of it on their own.
13 That's all I got. Thank you.

14 **MS. TELFER:** Thank you very much. That was a
15 powerful, powerful testimony. Can we turn next to Donna
16 Johnson-Bailey, please?

17 **MS. JOHNSON-BAILEY:** My comments include appreciating
18 the -- the conversation today and -- and the insights.
19 One consideration is to recognize the relationships that
20 programs such as WIC maintain with families with young
21 children, with limited incomes, and the associated
22 communities, and the utilization of elevated blood lead
23 levels as a risk factor for program participation
24 particularly in WIC.

25 Also to consider the housing impact of COVID

1 particularly among lower SES families and the relationship
2 to potential housing transiency as -- as COVID continues.
3 What that might mean in terms of the quality of housing
4 that they ultimately must -- must utilize, as well as
5 shelters and other facilities for temporary housing.

6 I would re-emphasize the need to monitor the impact
7 of COVID on screenings and consider the longer-term impact
8 and truly appreciated that presentation earlier today.
9 And also consider a better understanding and increase
10 promotion to help professionals and consumers about
11 sources of lead in the food supply. And encourage
12 understanding of elevated blood lead levels and that no
13 lead levels are safe particularly among infants and young
14 children. I think those are -- those are a summary of
15 some of my comments and, again, appreciated the -- the
16 presentations from this morning.

17 **MS. TELFER:** Thank you. And thank you for reminding
18 us that an epidemic has systemic effects more than just
19 sending people to their doctor, their hospital or their
20 bedroom for 14 days. Erika Marquez.

21 **DR. MARQUEZ:** Hello, and I think I, you know, a lot
22 of what I had been just jotting down has already been
23 said. I -- I really agree with our outreach to our
24 providers is essential, both those that are in training
25 and even those that are in practice. We have been doing

1 specific outreach to our providers here to try to continue
2 to engage them and encourage their families to test.

3 But we also have been engaging social service
4 providers because we realize that this work we can't do
5 alone in terms of prevention and awareness about lead. So
6 we need to engage our community partners that work with
7 these families on an ongoing basis all the time. And so
8 we have made a special effort to build those trusted
9 relationships with those types of partners in order to
10 have this conversation continuing to happen with our
11 families.

12 And I think one of the other things that I think
13 would be worth talking about is how we engage our
14 community members and how do we bring awareness and
15 outreach to them and we have to really -- we've been
16 rethinking this in terms of COVID, you know, which methods
17 of communication are best. But we have to think about
18 print and social media as some of our best practices, but
19 not just using them, but how we're using them, how that
20 messaging is getting to our community and being culturally
21 sensitive in that process. I think that's such an
22 important factor, we have community refugee communities
23 that we work with locally that they have practices that we
24 know are probably, you know, they use traditional makeup,
25 but they hold such a regard to these things because

1 culturally they've been part of their traditions for
2 hundreds of years.

3 So how do we culturally be sensitive and approach
4 these -- these communities that we need to reach to and
5 that's just an example of one, but we have been rethinking
6 those things and trying to develop our own best practices
7 in some of those approaches. So I think those are just
8 kind of maybe the top ones that I can think of that
9 haven't already been mentioned.

10 **MS. TELFER:** Thank you very much. Personally, I
11 would thank you for raising the issue of cultural
12 sensitivity; even though science is fairly universal how
13 we talk about it needs possibly to be modulated as we move
14 between different cultures.

15 And just a reminder to everyone, there is not a
16 problem if someone has already raised a point that you
17 want to make for those of us in practice. It is very
18 helpful, or in the federal government it is very helpful
19 to understand what trends in thinking are, so please don't
20 feel the need to edit yourself on that front.

21 Let's move now to Howard Mielke, if we may.
22 Dr. Mielke, it looks as though you're unmuted but we
23 cannot yet hear you. Okay. Let me ask that you be
24 gracious enough to allow us to move on and then we'll
25 figure -- we'll see if we can have any way of working with

1 you to determine how to rectify the -- the sound issue
2 because we do want to hear what you have to offer. So
3 while we're doing that, can we move to Anshu Mohllajee,
4 please?

5 **DR. MOHLLAJEE:** Hi. Thank you very much for this
6 question because in California we're in the process of
7 creating a new strategic action plan and so we're
8 wrestling at determining, you know, what are the best
9 practices for prevention of lead poisoning. And, I think,
10 for us we're just really realizing the impact of policy
11 and looking to others such as Rochester that's been
12 brought up, but also the state of Maryland on how do you
13 really create that infrastructure of identifying units
14 that have lead in it. And how do you create that
15 infrastructure if you don't have one right now.

16 So a lot of work is going into understanding the
17 policy, understanding that process, and I think that's
18 actually really helpful if -- if the stories of how
19 Rochester got their ordinance law and how Maryland got
20 their law could be incorporated and -- and told. I think
21 that would be really helpful. I also -- and through our
22 process we're also being very mindful of the racial health
23 inequities and how that plays into the best practices in
24 moving forward, how can we incorporate that in the work we
25 do. And then I also want to thank everyone for really

1 bringing back in the conversations that we've been having
2 in California, we haven't been focusing as much on the
3 food supply and so I just want to thank everybody kind of
4 bringing that back and something that I'll bring back to
5 think about as we move forward in our strategic plan. So
6 thank you.

7 **MS. TELFER:** Thank you. Let's go to Jill
8 Ryer-Powder.

9 **DR. RYER-POWDER:** Okay. So I -- I -- I'm hoping this
10 is the -- this is the right platform in regards to the
11 prevention of lead poisoning. So I just want to talk
12 about a little bit about screening levels for lead in
13 soil. I -- I do risk assessment which is looking at
14 levels of chemicals in soil and figuring out how much they
15 need to be cleaned up in order for people to work there,
16 live there safely.

17 So in California the current screening level is 80
18 milligrams per kilogram of soil and it's -- California has
19 shown through modeling that this results in an increase of
20 blood lead level of 1 microgram per deciliter. Currently
21 the U.S. EPA screening level for residential soil is 400
22 milligrams per kilogram. So if you put that in -- in the
23 model you get a blood lead level depending on -- on the
24 percentile between 2.8 and 8.5 micrograms per deciliter.
25 And just as an aside, in California the screening level

1 for an adult worker is 320 and that's for protection of
2 both an adult worker and -- and an unborn child. So I was
3 -- I was wondering why or if EPA is not reviewing that 400
4 micrograms per deciliter and if there's -- if there's a
5 chance that they could go back and review that to try and
6 lower that to get to a resulting blood lead level of 1
7 microgram per deciliter.

8 **MS. TELFER:** Okay. Thank you. We'll have an
9 opportunity to engage a little bit more with that
10 question, I'm sure, during our conversation -- our group
11 conversation after this. But first if I may, I'd like to
12 return to Howard Mielke and hope that we've been able to
13 resolve whatever audio issues we have. Dr. Mielke?

14 **I.T. SUPPORT:** And Howard, it does look like you may
15 be logged in on two devices so if there's a secondary, you
16 know, mute button on your second device.

17 **MS. RUCKART:** This is Perri. Howard, if you would
18 like you could type your comment into the chat and Jana
19 and I -- or I could read it to the group.

20 **MS. TELFER:** All right. While we're waiting for that
21 and, again, I am -- cannot even tell you how empathetic I
22 am about the challenges of trying to use technology, even
23 more so since several of us in Atlanta have no power at
24 the moment. So let me open it up, if I may, and then Dr.
25 Mielke when -- when you can either type into the chat or

1 signal me via chat and I will break the discussion and
2 we'll return to you so that we're sure that we get you on
3 the record.

4 So let's open it for the group to have some
5 conversation about things that you found interesting,
6 stimulating, have questions about, and please follow the -
7 - the pattern of raising your hand and I will call on you
8 in the order in which I see hands raised. Okay. Let's
9 begin with Karla Johnson.

10 **MS. JOHNSON:** Well, what I really would like to say
11 is that I just enjoyed this whole -- this whole meeting
12 and -- and the last one too. So I don't have anything
13 specific because it's all been very interesting. I don't
14 have anything specific, but I do have to give you all a
15 great deal of credit because not too many people can make,
16 you know, a six- or five-hour long call like this
17 interesting and engaging and yet you've done a wonderful
18 job this time and last time, as well. When I would tell
19 people about just, you know, I've been on a Zoom call
20 forever and they'd say, well, oh that sounds terrible. I
21 said, no, you know, they've really made it interesting and
22 this is a really interesting topic and it's something that
23 I appreciate.

24 I also want to say that I -- I -- I do like hearing
25 what the different programs or what people are doing

1 around the country and the different organizations so
2 that's all I need to say. You know, I don't have anything
3 more other than I really appreciate this and it takes a
4 lot of skill to be able to make a meeting online --
5 virtual meeting -- as interesting as you do and you've
6 done a very good job. So thank you.

7 **MS. TELFER:** Thank you. I'm sure that everyone who
8 is involved in organizing this appreciates that -- that
9 comment. It takes an extraordinary amount of behind the
10 scenes effort, as you know, and the Lead Poisoning
11 Prevention team really invests in it. So very kind of you
12 to acknowledge them. Wallace Chambers, can we turn to
13 you?

14 **MR. CHAMBERS:** Yes. Thank you. Just two quick
15 things. One of the things I felt was interesting which I
16 didn't give much thought about, but I should have, is the
17 impact of COVID on lead poisoning prevention, surveillance
18 and testing, especially since COVID and lead impacts
19 communities of color.

20 And also another thing I thought of is the -- when, I
21 think his name was Tom Neltner, brought up about the lead
22 in food. I'd like to see more information on that because
23 that's an area in which I -- I think people need to
24 understand a little bit better. Thank you.

25 **MS. TELFER:** Super. Thank you. Jeanne Briskin,

1 please share with us. Okay. It looks as though you're
2 unmuted, but we're not hearing you.

3 **MS. BRISKIN:** Oh, there.

4 **MS. TELFER:** Super.

5 **MS. BRISKIN:** Did this help?

6 **MS. TELFER:** That did, thank you.

7 **MS. BRISKIN:** All right. Great. I just wanted to
8 concur with Tom Neltner's question about the description
9 of Lead-Free Communities' Initiative. EPA's Office of
10 Research and Development has a proposal to work with CDC
11 to look at all sources of lead in communities and what's
12 needed to mitigate them, not focusing solely on lead
13 paint.

14 And so just trying to expand HUD's mission to go
15 beyond lead paint since lead service lines, lead goose
16 neck plumbing are also important sources in homes like
17 paint and are also the responsibility of homeowners. So
18 just trying to nudge the -- the needle on looking at
19 defining what the problem is and what the solutions are.

20 My second comment is in response to the question from
21 Jill Ryer-Powder, we have some internal discussions going
22 on about aligning lead soil values with other EPA lead
23 regulations, and I know that we've initiated some planning
24 for our residential soil remediation guidance to update
25 that 400 part per million soil screening level. Thank

1 you.

2 **MS. TELFER:** Thank you. All right. Do we have other
3 comments or observations on this topic? Okay. Perri, I'm
4 not seeing other hands raised. If anyone has a question
5 for Dr. Breysse, you have a very small window in which to
6 ask that because he is being called to another meeting.

7 **MS. RUCKART:** Jana, I also -- this is Perri, I just
8 want to say that Howard is having some technical
9 difficulties and they're working with him behind the
10 scenes to be able to find a way for him to make his
11 comments. So Howard are you available now?

12 **MS. TELFER:** I'm not seeing his name on the list at
13 the present moment so he may be trying to reconnect. All
14 right. We have ample time remaining in this section so
15 there is plenty of time for people to participate. Or I
16 would turn to Perri, whether you want to proceed with the
17 next discussion item or what path you would like for us to
18 follow here. Over.

19 **MS. RUCKART:** Oh, thank you. Yes, I think let's
20 continue on with the second discussion question. We'll
21 still take our break at 2:45 as scheduled and continue
22 this discussion after the break as well. And if we end a
23 little bit early, I think that will be okay. But let's
24 begin the second facilitated discussion period. Thank
25 you.

1 **FACILITATED DISCUSSION:**

2 **RESEARCH GAPS AND ADDITIONAL RESEARCH NEEDS**

3 **MS. TELFER:** Okay. Thank you. We may need the extra
4 time for this one because the topic is research gaps and
5 additional research needs and several of you brought those
6 forward in your comments this morning. Some of them were
7 highlighted in your comments about the presentations that
8 were made so we look forward to your contribution here.

9 This time we will, again, begin with Matthew Ammon
10 and then I'm going to flip the order and we will start at
11 the back of the group; as you all know my name starts with
12 "T", so I was always last in line and have some empathy
13 with those people who were back there with me. So we'll
14 flip the order of our responses after we open with -- with
15 Mr. Ammon.

16 **MR. AMMON:** So one of the things I just wanted to
17 have everybody know is, and I mentioned this on the first
18 call, was the Federal Lead Action Plan group that meets
19 regularly and I know there are some people on the call
20 here that are a part of that group. So one of the things
21 I did want to do is relate what the research group that
22 I'm involved with, you know, the Federal Lead Action Plan
23 have been up to, you know, what they've been focused on
24 just so everybody is aware. And the status of -- of, not
25 only where they are but what they're focused on.

1 So -- so one of the areas is identifying high risk
2 communities and as part of that group, we have, you know,
3 HUD, EPA and CDC. You know, we're all developing
4 neighborhood lead risk models. And so, you know, group --
5 groups within the FLAP, as we call it. You know, are
6 meeting and are, you know, trying to plan some case
7 studies using the models and some better alignment since
8 we have a lead risk model. I know CDC has a lead risk
9 model and so -- so does EPA. So -- so one of the areas
10 that that they're focusing on is identifying high risk
11 communities. So just to let everybody know that.

12 Another topic area that they are looking at are
13 occupational take-home lead. And so, you know, NIOSH is
14 big in providing a lot of help in that and guidance in
15 that. And we at HUD have even done a study on take-home
16 lead in construction workers and are -- and are developing
17 a curriculum around that. So, again, another topic area
18 is occupational take-home lead.

19 Another topic area that the group is focused on is
20 mitigating soil lead. Group hasn't really -- hasn't
21 really, I mean, it's been identified as a topic area.
22 They haven't really met yet, but they're looking at, not
23 only reviewing the soil lead health standard like you do
24 for -- for dust, you know, given all the comments that
25 have already been made on soil.

1 Another topic area for the FLAP has been lead in
2 water. And I know there's been a lot of work from us --
3 with us and EPA in looking at water and well water and
4 things of that nature. And the fifth area that they are
5 -- are topic area is multimedia exposure study.

6 And so food is actually a big part of that so, you
7 know, as lead levels decline, looking at lower sources
8 like lead in food like Tom had mentioned and also, of
9 course, water. So -- so just -- just to highlight it,
10 again, this is the Federal Lead Action Plan group in
11 meeting and looking at identifying high risk communities,
12 occupational take-home lead, mitigating soil lead, and I
13 was just informed that they have met so there's -- there's
14 been a start of that, lead and water and multimedia
15 exposure study, all those have been -- have been talked
16 about and there's some inertia within the Federal Action
17 Plan working group research subcommittee I should say and
18 those are the topic areas.

19 So just for context I just want to let you know what
20 other people are already working on and -- and, you know,
21 certainly we can get specific updates from them. I don't
22 know if we have any members on this group as part of the
23 FLAP research group but that may be something that we want
24 to hear next time we meet.

25 **MS. TELFER:** Super. Thank you for that -- that

1 environmental scan; that is really helpful to have a sense
2 of where we fit with everyone else. If we may, I'd like
3 to turn first to Jill Ryer-Powder. And invite your
4 comments on the topic of research gaps and additional
5 research needs.

6 **DR. RYER-POWDER:** I actually have no comments on
7 that.

8 **MS. TELFER:** All right. You will receive our award
9 for brevity and the thanks of your colleagues.

10 **DR. RYER-POWDER:** Not that I don't have an interest,
11 I just don't have any comments on that. Thank you.

12 **MS. TELFER:** We will have time for discussion
13 afterwards so if something sparks your -- your interest
14 then you may have an opportunity whenever -- when we get
15 to the discussion component.

16 **DR. RYER-POWDER:** Great.

17 **MS. TELFER:** Anshu Mohllajee.

18 **DR. MOHLLAJEE:** Hi, I think one of -- an interesting
19 research gaps is the use of lead in avgas still in small
20 aircrafts. I feel like that is something that comes up a
21 little bit during public comments and, you know, looking
22 at that and looking at the risk of living near airports
23 could be an interesting research gap that's currently
24 there. So that's all I have.

25 **MS. TELFER:** Thank you. All right. Let's move to

1 Dr. Mielke, if we can. Howard Mielke, are we able to
2 connect with you? And remember to unmute, always my
3 biggest failing on the Zoom calls.

4 **I.T. SUPPORT:** And Howard, if you did end up calling
5 in, if you can like chat in the last four digits of your
6 phone number, as well, just in case we can double check
7 one of our attendees who has also joined in via phone and
8 just make sure you're fully unmuted that way.

9 **MS. RUCKART:** Yes. Howard has indicated that he is
10 raising his hand so I'm not sure where the difficulty
11 lies. But if we can't get his audio working perhaps
12 Howard you could just submit your question in the chat box
13 and Jana or I could read it to the group. Thank you.

14 **MS. TELFER:** We'll be happy to do that. I'm not
15 seeing a hand raised so somehow we're having a
16 connectivity challenge for -- for which we apologize. It
17 -- that can be so frustrating. While we're trying to
18 resolve that, let's turn to Erika Marquez, if we may.

19 **DR. MARQUEZ:** Thank you. The only one topic, and
20 it's because it's something that we've been working on
21 recently in our engagement with our hunting communities,
22 is research related to some of these hobbies that are
23 directly correlated to lead and so like, obviously,
24 hunting is one I think we could probably expand on a
25 little bit more to be able to develop more messaging, to

1 solidify those risks with it, learning more about kind of
2 that take-home exposure. I think that was -- is the only
3 one really that comes to mind right now.

4 **MS. TELFER:** Thank you very much. And then following
5 Erika, can I turn to Donna Johnson-Bailey? And remember
6 to unmute. Okay. It's possible Donna had to step away so
7 we will come back to her and go instead to Karla Johnson
8 right now.

9 **MS. JOHNSON-BAILEY:** I -- I apologize.

10 **MS. TELFER:** Oh, thank you. Super.

11 **MS. JOHNSON-BAILEY:** I shrunk my screen and it was so
12 small I couldn't find it. My only thought in terms of the
13 research is more around the, again, around the
14 communications getting some baseline understanding about
15 the sources of -- of lead particularly among health
16 professionals and consumers. Again, I think that's a
17 major gap and -- and perhaps looking at that long-term
18 would be a beneficial way to better understand where
19 consumers are in terms of their understanding of lead
20 exposure.

21 **MS. TELFER:** Terrific. Thank you very much. As the
22 parent of a millennial who has just purchased his first
23 home which is a hundred -- hundred-year-old structure, I
24 appreciate that insight particularly and personally.
25 Let's move to Nathan Graber, if we may. Nathan?

1 **DR. GRABER:** Okay, sure. So I'm not a researcher,
2 but I -- I think I can throw out some ideas out there that
3 they're kind of more like broad strokes. But the folks
4 who are much smarter than me and -- and know how to put
5 really good research questions together can -- can take
6 this as they wish. But first I want to just mention,
7 again, technology and the -- the need going forward to
8 make sure we have the laboratory equipment and methods and
9 training that are -- are needed to measure lead levels
10 more accurately as we look towards lower and lower lead
11 levels. And so I think that's, you know, something that
12 the -- the lab should continue to work towards.

13 There was a comment earlier so I'm going to reframe
14 -- that's reframing one of the things I was thinking about
15 which is, it has to do with high risk communities and
16 identifying them and modeling where to find them. Once we
17 do identify them and model them, you know, where -- when
18 we find them, I'm also looking back historically at the
19 surveillance data and -- and trying to understand what
20 were the factors that had the greatest influence on
21 lowering blood lead levels in those communities? And
22 looking at the -- the policy, be it statute, regulations,
23 enforcement, the -- the surveillance programs and in
24 particular I -- I think there's an excellent opportunity
25 to look towards the combined surveillance program with the

1 ABLES and the childhood lead programs to see how that
2 influences the overall reduction in blood lead levels in
3 -- people of all ages, not just kids, and so I -- I think
4 it's -- it's -- it's a real -- it's a really tremendous
5 opportunity to open up a way of looking at the life cycle
6 of lead.

7 And then -- and then also what are the other factors
8 that lower those lead levels in those communities,
9 including the community partners and the sort of
10 comprehensive approaches that such as like, Healthy
11 Neighborhoods programs.

12 And then another area of interest is identifying
13 those people who need screening. I mentioned it a little
14 bit earlier that we do have risk factor questions that are
15 validated on a local level and as we get to lower and
16 lower of blood lead levels we're looking at as being --
17 how people who are exposed above the -- the general
18 population -- how do we have to change those -- those risk
19 factor questionnaires.

20 So it's great we do universal screening in a lot of
21 places for children before age one and before age two
22 every -- every and, of course, there's universal screening
23 for workers who are exposed and in some places for
24 pregnant women. But for the majority, it has to do with
25 identifying risk factors and then we decide to test.

1 So is there a way to improve that? Is there -- what
2 are the -- what are the, you know, what are the components
3 that are going to be most effective in doing that? Both -
4 - one validating the questions but educating the providers
5 and educating other stakeholders here who have contact
6 with people who are potentially exposed. I know target
7 shooting was mentioned, what about, you know, you know,
8 the -- the -- the coaches and trainers for target shooting
9 or hunting and the networks of people in the hunting
10 community and fishing and so on. So -- so that's --
11 that's another area.

12 And then finally, this is the last thing and I think
13 it's kind of an important question and I didn't think
14 about it in as much detail until the presentations this
15 morning which, by the way, just -- were just excellent,
16 really, really tremendous. It's -- it's -- think about
17 what our goal is. When we say we're going to try to
18 eliminate lead and -- and I -- I put that out there as --
19 it's -- it's a very, you know, in some ways a very
20 academic question, but it also has practical implications.
21 It's like how low can we go? If we're keep talking about
22 lowering the level 5 to 3.5 and, you know, at which point
23 do we say we've -- we've had success.

24 You know, if I -- I recall Healthy People 2020 goals
25 they talked about having, you know, a lower percentage of

1 people below a certain blood lead level. But are we
2 talking -- we're talking about having -- having no people
3 below a level that can be measured by our current
4 technology, but if we keep improving technology, when do
5 we get to, I don't know, background levels? I don't know.
6 And we talk about that in a lot of different settings, as
7 well, not just in blood lead levels, but also in
8 environmental sampling and so I think that's a big
9 question that cuts across pretty much all the agencies
10 that have regulatory programs where they use environmental
11 sampling as a -- a measure for success in remediation, as
12 well as for the clinical side and the public health side
13 for determining what's -- what's a low blood lead level
14 and one that we don't have to be concerned about. That's
15 it.

16 **MS. TELFER:** Super. Thank you so much. As someone
17 who is a lay person who works with researchers, for an
18 individual who says he doesn't have footing in research,
19 those were some terrific suggestions and I think that as
20 I've observed things here at CDC very often our
21 researchers benefit a great deal from having an
22 understanding from people who are dealing with the issue
23 on a daily basis and that helps them form their studies so
24 that we can be of greater service.

25 With apologies to Howard Mielke, he has been kind

1 enough to enter two or three comments in the comments
2 section. Those have gone to all of the panelists and I'm
3 going to read them for the record and then invite you all
4 who are on the panel to take notes and then perhaps we can
5 engage some comments and discussions on those when we get
6 to the open discussion section.

7 So Tiffany if you will bear with me, I will go to
8 Howard first since we've had to bypass him on a couple of
9 rounds. I will not be able to convey either his erudition
10 or his passion but I will be faithful to the words that I
11 see in front of me.

12 So the first comment is a question which is, has any
13 other program worked on playgrounds and garden soils at
14 childcare centers and community places?

15 And then the second question, and I'm scrolling
16 through my -- my notes here is that, Dr. Mielke states
17 that he has a lot of information about reduction of soil
18 lead and blood lead in communities over time. A recent
19 HUD result shows the same reductions as were found in --
20 in New Orleans and the Michigan Tri-County area. This
21 suggests that soil lead is an important driver of blood
22 lead levels. Excuse me. And he -- he shares -- he
23 indicates that he is frustrated indeed about not being
24 able to participate in the discussion. I assure you that
25 my frustration equals yours because you are always a -- a

1 substantive contributor.

2 Let me see if there is anything else that I am
3 missing here. And I don't see anything at the moment.
4 But I do have a comment from Karla Johnson that I would
5 like to share with you and that is that a study on
6 regentrification and if that is changing the demo -- and
7 if that is changing the demographic of lead poisoned
8 children. She says from her experience high-income, non-
9 minority families are not a main target for educational
10 outreach. If more children from higher income families in
11 historic neighborhoods were tested, would that demographic
12 change? Thought provoking question and then, if we may, I
13 would like to move to Tiffany DeFoe.

14 **MS. DEFOE:** Sure. So as Matt mentioned the Federal
15 Lead Action Plan goal for -- now has an occupational
16 take-home workgroup. And I am on that group along with
17 what's really, you know, it's been brought together by
18 NIOSH and includes members from OSHA, HUD, EPA and the --
19 and the NCEH, as well.

20 We had our first meeting in October and so, you know,
21 we're really in preliminary discussions as to the
22 direction that we're taking. But in terms of some things
23 that -- that were brought up as -- as -- as important
24 research gaps -- although we do have, you know, some
25 evidence from states and a handful of studies that look

1 recently at the problem of take-home exposures in a
2 variety of industries, it could certainly be broadened.
3 It would be of use to broaden research into take-home lead
4 and its impact on -- on workers and their family members.

5 And to investigate how we can work with states and
6 industries to assess the effectiveness of current
7 requirements, especially workplace requirements that are
8 related to take-home and some things that are kind of,
9 like, very directly interfaced with take-home include
10 requirements for personal protective clothing and
11 equipment, what's provided, to who, and how it's handled
12 in terms of cleaning requirements around whether you can
13 and can't take that home. Requirements around workplace
14 hygiene, you know, washing stations, showering and for
15 using them and -- and so research into identifying how
16 these are functioning now, how effective they are in
17 limiting take-home exposure and best practices for further
18 reducing take-home exposure.

19 And then more indirectly it -- it could be of use to
20 -- to have more research into the overall relationship
21 between exposure levels in the workplace and impacts on
22 family members and blood lead levels. And I should say
23 that since we've only had the one meeting so far of the
24 workgroup, this isn't -- I can't speak for the workgroup
25 in identifying those areas as the most important, but I'm

1 kind of getting my own thoughts mixed in there. Thank
2 you.

3 **MS. TELFER:** Thank you. Very helpful. Wallace
4 Chambers, may we invite your insight?

5 **MR. CHAMBERS:** Earlier I mentioned about lead in food
6 and also how COVID impacts lead efforts. But I was
7 thinking as you were talking about -- and maybe this is
8 going to happen or somebody did a similar study of the
9 impact of the lead-free communities, creation of the lead-
10 free communities on housing stabilities in those
11 communities, the pre and post, before the community was
12 lead-free and after. How did it impact the housing
13 stability in that area?

14 And another thing I was thinking of is as we decrease
15 these lead levels from 5 to 3.5, what's the impact in
16 lower income communities of color as far as behavior or
17 crime and violence in those areas. Thanks.

18 **MS. TELFER:** Thank you. Some thought provoking
19 questions. And let's go to Jeanne Briskin, if we can.

20 **MS. BRISKIN:** Hello. I have seven areas for research
21 needs that my colleagues and I have identified from EPA.
22 And I also want to thank the various members of the
23 Federal Lead Action Plan research workgroup last December
24 although our summer report is not yet out in final. We've
25 heard already today some of the follow-on work that's --

1 that's going on and -- and we really appreciate
2 collaborating with everybody.

3 So first, source apportionment quantifying exposure
4 from soil, dust, water, food and air, sources and
5 residents to schools, daycares, play areas, children's
6 micro environments and then use that information together
7 with statistical exposure modeling to target and optimize
8 mitigation efforts.

9 Second, continuing development of methods to identify
10 and map elevated blood lead level hotspots and the
11 potential sources of exposure in those locations for
12 mitigation actions.

13 Third, multimedia studies. Identify pilot locations
14 for aggressive lead mitigation actions and assessment of
15 impact of these actions on the prevalence of blood lead --
16 elevated blood lead using EPA, CDC, ATSDR, HUD lead
17 mapping and modeling efforts and grants such as the AHHSII
18 analyses, the CDC Lead-Free Initiative and the HUD, EPA
19 CDC grant location.

20 Fourth, continuing research and providing technical
21 support on corrosion control and point of use filters to
22 reduce lead exposure through drinking water.

23 Fifth, developing water sampling methods and premise
24 plumbing model to identify lead exposure risk and
25 accelerate lead service line replacement.

1 Sixth, continuing development of methods to rapidly
2 and inexpensively assess lead bioavailability at
3 contaminated sites and support the use of the updated
4 IEUBK 2.0 blood lead level model for determination of
5 cleanup levels and evaluation of potential exposure risk.

6 And lastly, continuing development of methods to
7 sequester lead in place potentially reducing cleanup costs
8 while reducing bioavailability of lead. Thanks very much
9 for the opportunity to contribute.

10 **MS. TELFER:** Thank you. That is much appreciated and
11 I am happy that this session is being recorded because
12 fast as I could write, I couldn't quite keep up and those
13 all sound like fruitful areas for -- for investigation.
14 So we have time --

15 **MS. BRISKIN:** I'd be happy to email them to you.

16 **MS. TELFER:** It'll be in the record I'm sure. But we
17 do have plenty of time if -- if you would like to ask
18 questions of your colleagues or if some of the things that
19 were mentioned sparked new ideas for you, please raise
20 your hand or send a note in the chat. Yes, Matthew Ammon.

21 **MR. AMMON:** Just want to add one thing. I didn't --
22 I didn't say in my discussion but -- so the American
23 Healthy Homes Survey, the second one, I just want to give
24 -- let our -- let people know that, you know, we have been
25 doing a survey with EPA, you know, these are homes in the

1 U.S. to evaluate the presence of lead-based paint and
2 lead-based paint hazards, obviously, dust and soil. But
3 when we're also -- when we're in the home we all start
4 collecting, you know, water sample for lead, air sample
5 for formaldehyde, dust sample for mold and then wipe
6 samples for pesticides.

7 So this will give us a -- a really good idea what the
8 -- the state of housing looks like across the U.S. and if
9 people remember, this was -- is really a follow-on to the
10 2006 American Healthy Home Survey, so this is the second
11 version. And we can do comparisons from what we found in
12 2006 to what we're finding now. We finished most of the
13 field work so we should be able to release the port --
14 some -- report, sorry, sometime next year. And I know for
15 us a lot of what we find in this report is really used in
16 the -- in the overall justification because we get asked
17 all the time. What's the status of -- of homes in the
18 U.S. related to lead-based paint and lead-based hazards
19 and this is certainly a good way to help characterize
20 housing units. And so I just want to give everybody an
21 update to that work, again, it's the American Healthy Home
22 Survey II. If -- if you didn't take notes, you can just
23 Google it and it'll say the same thing. I just want to
24 let everybody know. Thanks.

25 **MS. RUCKART:** This is Perri. I just want to say that

1 we're very much looking forward to seeing that. So thank
2 you for mentioning that.

3 **MS. TELFER:** Thank you. That gives us something to
4 look forward to in the next year, terrific. Any other
5 comments, questions, ideas about -- that are being spurred
6 by your colleagues' presentations? (pause) I have done
7 enough television and radio in my past to know how deadly
8 dead air can seem and so let me hand the mic back to
9 Perri, but we won't yet close off the -- the discussion
10 opportunity if that's amenable to -- to the Lead Poisoning
11 Prevention team and so if I see a hand go up, I will
12 signal them so that we can still include your -- your
13 observation. Over.

14 **MS. RUCKART:** Thank you, yes. So we have until 4:30
15 so that's about another two hours. We do have a break
16 scheduled in there at 2:45 so maybe we should break now
17 and then people can sort of marinate on their thoughts and
18 then come back and see if we can pick up the discussion at
19 that point unless anyone else from CDC would like to make
20 any comments at this point; we have some extra time?

21 **MS. TELFER:** Super. And we'd invite our CDC
22 colleagues, if you would, to use that same hand raising
23 convention, if you'd be kind enough to do that.

24 **MS. RUCKART:** Okay. Well, seeing none, it's 2:33,
25 but why don't we come back at 2:50. How does that sound?

1 No objections so let's take a break a little bit early and
2 everybody can kind of recharge and we can pick the
3 discussion back up at 2:50. Okay. Thank you for being
4 flexible with this schedule change.

5 (Break, 2:33 till 2:50 p.m.)

6 **MS. RUCKART:** Okay everybody, it's 2:50 so I'd like
7 to welcome you back from the break. This is Perri
8 Ruckart. I will turn it back over to Jana so we can
9 continue with our lively discussion. Thank you.

10 **MS. TELFER:** Thanks, Perri. First I'd like to turn
11 to Howard Mielke. I think we have finally been able to
12 make contact again. So would you like to lead off?

13 **DR. MIELKE:** Thank you, really appreciate it. Takes
14 a little persistence sometimes. That's sort of the story
15 of my life. Okay. I wanted to provide just a little bit
16 of perspective on New Orleans and the work that we've been
17 doing here. And one of the things that I've come to
18 realize is that soil is underappreciated. I don't think
19 air lead is underappreciated. I think that we understand
20 now that when lead was removed from gasoline, it made a
21 major impact on children's health. But soil lead is
22 connected with air lead and soil is where the massive
23 quantities of lead that were used in our society ended up
24 contaminating the soil and the urban soil especially.

25 My perspective really started with some work with

1 ATSDR. I was at Xavier University and ATSDR was an
2 amazing funder for the program when I started back in soil
3 when I came to New Orleans, and one of the things that I
4 noticed as a result of the work between the soil work that
5 I was doing and I was working with the health department
6 and they were providing blood lead samples and blood lead
7 data from the communities we were working at. We started
8 to see that the amount of lead in the soil was related to
9 the amount of blood lead and so the environmental exposure
10 became very important. And as a result of that we did
11 arrive at a conclusion that, in a hypothesis that the
12 amount of lead in the soil was associated with blood lead
13 and that was strengthened with time. I then received a
14 grant from HUD then HUD that was -- we called it the
15 Recover New Orleans Study was Recover New Orleans before
16 Katrina. We were trying to find ways to change the
17 environment so that the blood lead levels or the exposure
18 possibilities would be reduced. So HUD was involved, of
19 course, CDC has always been involved because of the blood
20 lead measurements that we're doing. So we put together a
21 combination of environmental work from -- funding came
22 from the ATSDR and HUD and then just the CDC funding went
23 to the health department and I worked with the health
24 department throughout the whole period of time. And as a
25 result of that we, over time, we started to see that there

1 was, in fact, very strong changes that went together,
2 concurrent changes between soil lead and blood lead in the
3 city of New Orleans. And that's recently been published
4 and then a more recent publication was from the Michigan
5 Tri-County area, the Detroit Tri-County area and we
6 spotted the same kind of reduction. But then it turns out
7 I just heard from HUD that they have been doing a -- a
8 repeat study on samples that were collected in 2006 and --
9 and in 2019 they found that, in fact, their soil lead
10 levels have undergone reduction. I don't know about the
11 blood lead levels in those same communities.

12 But this is sort of an encapsulation of what we think
13 is taking place that the soil lead -- the blood lead
14 levels are going down as soil lead levels have undergone a
15 decline and I think that's an important -- a very
16 important issue because it gives us some new tools in --
17 in changing the environment and how to change the
18 environment so that there is primary prevention for
19 children's blood lead. So if there's any questions I will
20 be delighted to answer them at this time.

21 **MS. TELFER:** Super. Thank you so much. I am
22 delighted that we were able to have you make your own
23 presentation rather than having someone have to do it on
24 your behalf. So I would invite you, again, we were
25 talking either about effective services and best practices

1 or research gaps and additional research needs. If the
2 break has refreshed you and you have a new idea, or
3 thought or question, please feel welcome to raise your
4 hand now. Yes, Matthew Ammon, please, first.

5 **MR. AMMON:** What -- so somebody had mentioned, I
6 think it was Tiffany, just about the need for us to have,
7 like, when nobody has infrastructure, being able to have
8 something related to infrastructure so that people don't
9 start out, you know, with no guidance at all. And, you
10 know, related to infrastructure and best practice I think
11 is key and that is, you know, having -- having a -- a
12 collection of -- of, not only the best practices, but
13 examples in -- in pilots that have been done in this
14 field, whether it's related to screening or, you know, bet
15 -- even better financing models for lead, you know, a
16 whole collection of things.

17 And I think we certainly can be better -- all of us
18 be better -- at providing samples of best practices around
19 the country and that's sort of one of the reasons why
20 we've been working with the National League of Cities
21 regarding putting together these expert panels so that we
22 can go into communities and provide a series of experts
23 for issues that they're addressing in -- and lead
24 ordinance -- ordinances was one of them and the progress
25 that communities have made. And I say communities, small

1 but also large, such as states like Maryland and -- and
2 Rhode Island and, you know, New York with Rochester, that
3 have really made a difference and have been able to make
4 substantial progress in -- in lowering rates because of
5 the -- the collectiveness that has been done. And Nathan
6 -- Nathan had talked about this, you know, looking at what
7 factors have led to a decrease in -- in, you know, blood
8 lead levels in cities and -- and many times it's an entire
9 collection of things, you know, one of it is I think, of
10 course, infusing federal dollars and then -- and then
11 using that as a catalyst for local change whether, you
12 know, it's a series of very strong non-profits or
13 philanthropies, certainly the -- the elected officials
14 really driving change -- so it's not -- you know it's a
15 collection of things that really makes a difference in --
16 but I do think that the whole spectrum of what -- what is
17 being supported at the federal level. And then what can -
18 - can get done at the local level to sort of amplify what
19 is being done at the federal level.

20 It's really made a difference in these communities so
21 not -- just taking a half step back, you know, having a
22 really good series of examples of what has worked in
23 communities and I -- I don't mean to say that a set of
24 best practices is going to work in every community, that's
25 not what I'm saying. What I am saying though is at least

1 providing what has been done and what has worked so
2 communities can try those things. But I -- I don't know
3 of any place where all of that exists right now. You
4 know, we try to have some of that in the various reports
5 but it would be nice to be able to centralize, you know,
6 issues regarding screening, you know, what's going on?
7 What has worked best? What are some of the innovations
8 that have happened locally that people are using to -- to
9 really help either -- either further work that is being
10 done or, again, in areas that are just starting to help
11 guide them what is being done or what has worked well in
12 communities.

13 **MS. DEFOE:** Thanks, Matt. And I -- I certainly
14 didn't mean to give the impression that I thought there
15 wasn't already existing guidance that is out there. But I
16 -- but I definitely agree with a lot of the -- the things
17 that you've said about the value of -- of being able to
18 integrate across different kinds of exposures and I really
19 appreciate it in your presentation the focus on dealing
20 with specific communities and localities. Working in a
21 federal -- working for an agency I don't, you know, my
22 office doesn't often have that kind of opportunity but --
23 but I really see the value of it.

24 I was really curious to hear more, I don't know if
25 this is the right context or later, but I think you

1 mentioned that you were doing -- that in HUD you're
2 working on a curriculum around take-home lead and
3 construction? And that's something I'd love to hear about
4 -- more about either -- either now or -- or offline
5 sometime. Did I hear that right?

6 **MR. AMMON:** Yeah, you did -- you did. So this was me
7 reporting out what the, I'm going to say it FLAP, I'm
8 sorry for the acronym but the -- the FLAP research group
9 is doing and Dr. Peter Ashley actually provided the
10 summary -- summary for me so I know he's on the call with
11 -- with Warren -- Dr. Warren Friedman, but, yeah. So one
12 of them is that and I can get further information on that
13 although you can get -- I can give you Dr. Ashley's
14 contact information if you want to get in contact with him
15 to learn more about that.

16 So there is a interagency workgroup specifically on
17 the implementation for that, as well, which, you know, can
18 -- can help make that connection to help you know a little
19 more about that. I'm -- I was just providing a general
20 overview of what they're doing, but certainly any
21 specifics. I can give you the contact for Dr. Ashley and
22 Dr. Friedman to know more about that.

23 **MS. DEFOE:** Dr. Friedman, I'm -- I'm already in touch
24 with and I think that I have Peter's, as well. But I'll
25 reach out if I -- if I -- if I can't find it for some

1 reason. Thank you.

2 **MR. AMMON:** Good. No problem.

3 **MS. TELFER:** Thank you very much for that
4 conversation. It's always difficult to connect when we
5 don't see each other and so that was a terrific example of
6 -- of how to use the technology well. I'd like to turn
7 next to Nathan Graber and then after that we'll go to
8 Jeanne Briskin. So Nathan first, please.

9 **DR. GRABER:** Yeah. You know, I -- I just want to --
10 I don't know if everybody else feels the same way. I
11 don't do a lot of Zoom calls. I actually see patients
12 every day and do things in person so I -- I find it kind
13 of difficult to have a conversation when I can't see the
14 other people in the room. So I'm hoping, of course, for
15 the next meeting that we'll be able to see each other. I
16 don't mind the idea of being on the camera for at least
17 part of the meeting so that, it just sort of helpfully --
18 hopefully will foster some -- some better, you know,
19 conversation.

20 Just sort of, you know, tagging off of something that
21 Matt was saying. He talked about, like, the levels of the
22 -- the efforts of the -- kind of at the local level -- the
23 local levels. And, I guess, I'm -- I'm more curious as to
24 where the -- the future of the lead surveillance programs
25 are going and the grants that come out from CDC to the --

1 to the public health agencies that carry out the
2 surveillance programs. My, I mean, I guess, there was at
3 some point the new RFA kind of viewed plans coming out and
4 just wondering if that would integrate more local
5 surveillance and, as well as some requirements around
6 providing those data to, not just to -- back to CDC, but
7 also to some of the local stakeholders.

8 And to add on to that one of the things that, you
9 know, I'm really interested in and I mentioned it earlier
10 is how local health departments can help validate surveys
11 for deciding when to screen -- well, when to -- to measure
12 an actual blood lead level versus just screening with
13 questions and having that feedback. I -- I think a lot of
14 us, you know, aren't entirely aware of all the potential
15 sources in our communities and we certainly try to be, but
16 we also try to do a lot of things for our kids. And we --
17 we do stress a lot on the -- on the home environment.

18 So, I guess, another -- another question that was
19 kind of coming up in my mind when I was listening to
20 Matt's presentation is -- is that, you know, do you see,
21 like, sort of an increasing percentage of the funds
22 allocated in the lead hazard -- the remediation programs
23 or the HUD grant programs rather, to reduce lead hazard so
24 large allocations also going to things that are more like
25 Healthy Homes, like, triggers for asthma and -- and such

1 as moisture issues and pets and so on and addressing those
2 things. So, I guess, I'll kind of stop there for a second
3 and then I -- I do want to say something else after that
4 to see if there's any --

5 **MR. AMMON:** Do you want me to answer that?

6 **DR. GRABER:** Yeah. That -- that would be -- that
7 would be terrific.

8 **MR. AMMON:** So -- so historically, you know, the lead
9 is king. So we even tried to change our name to the
10 Office of Healthy Homes and Lead Hazard Control and
11 Congress slapped us down and immediately changed our name
12 back which is pretty funny, actually, put it in the -- in
13 the bill. Lead -- lead has been in the forefront of what
14 we've been doing for -- for a quite a long time.

15 And you know, lead in terms of its funding has a lot
16 of walls around it, right? So we can't do a whole lot and
17 that's why we talk about lead-based paint hazards, you
18 know, it's strictly that. You know, by the definition of
19 -- of yeah. You know, and moving beyond that with that
20 particular funding is hard so -- so that's where we said,
21 well, we need the other source of funding for -- for
22 Healthy Homes. So we know we can do lead with Healthy
23 Homes, right. We can't do, like, asthma with lead, so
24 increasingly though we're getting more and more funding on
25 the Healthy Homes side and we're able to really ramp up

1 the dollars that we have per grantee into the millions and
2 we know there's a pretty big -- pretty big cost difference
3 lead regarding Healthy Homes and I had it on one of my
4 slides.

5 And so I do think -- so -- so to answer your
6 question, yeah. We keep increasing the amount as we
7 educate Congress that we can do lead with Healthy Homes
8 and they can -- they can, you know, understand that
9 without thinking we're trying to do something different
10 and it is much more flexible, the dollars in terms of
11 lead. So I think the cost differentiate -- differentiate
12 it -- a different, differin, differentiation is that lead
13 is going to cost more so that's why there's more on that
14 side but we think we're getting to where we need to be on
15 the Healthy Homes side with dollars. We're -- we're not
16 quite there, but we're actually pretty close based on what
17 we're seeing in terms of its use and its costs on the
18 ground in specific homes.

19 Wouldn't it be nice if we had one pot of money for
20 everything that allowed us to really meet the needs of all
21 the communities, you know, based on what they're telling
22 us? Yeah, I think -- I think it would be a lot easier for
23 that to happen and we've been trying to do that through
24 our funding instruments that notices a funding
25 availability by having, basically, one application. One

1 application where -- where communities can apply for
2 funding that way and making it easier, again, I talked
3 about reducing the barriers to access the capital and this
4 is one way to do it is to have it all -- all in one place.

5 So, you know, I -- so there's -- on -- on the horizon
6 I still see lead as greatly outpacing -- the statutory
7 lead side -- greatly outpacing the Healthy Homes. But I
8 do think that if you look at it on the ground, again, it's
9 really balancing out based on the costs that we're seeing
10 on the ground and what the cost of lead is versus the
11 additional Healthy Homes. But we've been able to
12 substantially increase the Healthy Homes from where we
13 were, you know, just 10 years ago. Doubled the money --
14 we've doubled the money. And money goes a long way when
15 you combine it specifically with lead hazard control and
16 not keep it separate, meaning that to have a separate pot
17 of money, I think, would make it more difficult because
18 then one jurisdiction would have to apply for two sources
19 of money. But then number two they're not tied together.
20 We want to make sure that the work is actually tied
21 together and this is the way to do it, whether it's a
22 front-end Healthy Homes NOFO that does everything or a
23 front-end lead NOFO that adds Healthy Homes funds for
24 jurisdictions to go in and -- and apply those joint
25 funding to a particular unit.

1 **MS. TELFER:** Super. Thank you very much for that
2 insight and could we turn to Monica Leonard before we get
3 to our next panelist to contribute some insight from CDC?

4 **CDR LEONARD:** Yes, hi. Thank you, Nathan, so much
5 for your question this afternoon. I believe your question
6 for CDC was relevant to surveillance funding. We are
7 currently in our supplemental year of our three-year
8 cooperative agreement to our 48 funded recipients and this
9 is the last year of funding for our two-year cooperative
10 agreement to our five other partners to provide a total
11 funding -- a total number of recipients funded are
12 currently 53 which does include funding for surveillance
13 activities.

14 We are in the process of developing our competitive
15 Notice of Funding Opportunity Announcement which we
16 foresee coming out in the -- in the early calendar year of
17 2021. We do foresee still having our surveillance
18 component there. Because it is a competitive notice of
19 funding I am limited in how much I can speak to it other
20 than on [grants.gov](https://www.grants.gov) there was a forecasting posted just
21 last week that gave a general overview of some of the
22 parameters around -- in terms of we anticipate funding 55
23 awards. We have a floor of roughly \$150,000 with a
24 ceiling of 500,000 but we do intend to keep surveillance
25 as one of our components of funding even in -- in -- even

1 with the new competitive funding opportunity that will be
2 coming out early next year. Thank you.

3 **MS. TELFER:** Thanks, Monica. So for those of you in
4 (inaudible). Okay. Thanks, Monica. So for those of you
5 in state, county, or local health departments, make note
6 of those opportunities that are coming up. Jeanne
7 Briskin, thank you for being so gracious as to wait for
8 that -- through that discussion.

9 **MS. BRISKIN:** Sure thing. Going back a bit in the
10 conversation, I just wanted to respond to Matt's nice
11 comments about aligning federal mapping and analysis
12 models and we're looking forward to continuing to advance
13 this effort collectively so that we can make sure we have
14 alignment across the federal family with our individual
15 approaches because we all recognize we have unique mapping
16 goals and we want to kind of break down the silos, as --
17 well, we -- where we can and where it makes sense so that
18 we can collaborate efficiently and identify communities
19 with increased exposure. So we're happy to be working
20 together. Thank you.

21 **MS. TELFER:** Thank you. Other comments on either of
22 this afternoon's discussion points? And while we wait for
23 hands to go up, Dr. Breyse has returned and so I would
24 invite him, if he has a comment to contribute at this
25 point.

1 **DR. BREYSSE:** I think since I'm just jumping in at
2 the end, I'm going to refrain from commenting. But I'm
3 glad to be back.

4 **MS. TELFER:** Thanks, Pat. All right. Other
5 questions, comments, observations and insights from the
6 panelists? Okay. Perri, let me hand the mic back to you,
7 if I may.

8 **MS. RUCKART:** Okay. I'm just trying to get myself
9 off mute. Excuse me a second. So it is 3:15, we do have
10 an hour if we need it. Perhaps we could see if -- if Matt
11 would be ready to do the wrap-up and discussion and then
12 we could circle back if there's any closing comments.
13 Matt, is that okay with you? Would you be prepared for
14 that?

15 **MR. AMMON:** I have a little notebook that has a
16 million notes in it. So I can't be sure of anything.

17 **MS. RUCKART:** Do you need a few minutes to gather
18 your thoughts there?

19 **WRAP UP AND DISCUSS TOPICS FOR NEXT MEETING (CHAIR)**

20 **MR. AMMON:** No, no, no, no, no. No, I can go through
21 it. So first of all, I -- I really want to thank
22 everybody, I mean, the presentations today were -- were --
23 were great, you know, I think they're extremely timely.
24 There's, you know, been a lot of back and forth discussion
25 about things that we still need to discuss and where we

1 need to move forward. You know, the -- the presentation
2 on the Lead-Free Cities Initiative, you know, there -- as
3 that is developing I think we provided a lot of input --
4 input into helping build that as it's being built out and
5 what considerations need to be thought about regarding
6 that, you know, including -- including the name, I should
7 say.

8 But, you know, again, I think it's important to look
9 globally at -- at what it says, you know, rather than get
10 caught up in specific word meaning. You know, the overall
11 emphasis is really focusing on something beyond just
12 reduction but really, again, we had talked a lot about
13 aligning efforts and I talked about this, as well, about
14 aligning efforts and aligning goals and -- and standing
15 behind something and -- and planting your flag down and I
16 think focusing on something broader than what the federal
17 action plan had talked about I think is -- is critical and
18 something to really think about moving in that direction.
19 And I think this -- this starts that discussion and,
20 again, I think it's more of a very good, you know, again,
21 flag planting tool to help align all of our resources
22 behind efforts like this so I think it's, you know, I
23 think it's -- I think it's really good.

24 You know, in terms of the -- the blood lead testing
25 and COVID-19, you know, it's -- it's -- it's one of those

1 things we're behind the eight ball, we saw a lot of our
2 grantees, again, kind of delay services and we know what
3 happens when we delay services, you know, the implications
4 were -- were clear that lead poisoning rates could go up.
5 There's limited screening, you know, a lot of kids missed
6 their screening tests. And so, you know, being able to
7 focus back on that and focusing as part of -- of a normal
8 well childcare visit, you know, should occur and should be
9 reinforced as much as we can so that, you know, we can get
10 back up to speed and I think a lot of people are hopeful
11 that we will get back up to speed. I don't know when, but
12 we have been encouraging all of our -- our grantees to do
13 what they can and -- and they have been -- they have been
14 adapting to the situation. And I think they have risen,
15 you know, to really be able to address this all across the
16 country as best as they can and we are supporting them as
17 best as they can. But we realize these are difficult
18 times certainly when it comes to, you know, going into the
19 home or -- or having families go to doctors' offices.

20 But, again, I'm -- I'm definitely hopeful that
21 focusing on that and continuing -- but continuing to
22 support and encourage providers do the testing. And then
23 whatever we can do, even outside the clinical setting,
24 because I always feel that, you know, healthcare is not
25 just in the hospital, it's everywhere. So what we can do

1 to help support efforts, not only in the clinical setting,
2 but also outside of that on a regular basis to ensure that
3 that screening occurs as a tool, right, as a tool it is
4 critical. So that was, again, a very, very timely
5 discussion, as well as the lab.

6 You know, lab performance very timely, as well, you
7 know, in terms of as -- as thoughts and as discussions are
8 being had about changes in the reference value. Very,
9 really great technical analysis of what is going on and,
10 you know, what needs to happen, you know, in terms of --
11 of -- of improving precisions of methods and I think that
12 was a consistent theme throughout was always working
13 toward being -- having better tools and accessing better
14 tools and being aware of what tools are available. I
15 think there's been, you know, a lot of initiative in
16 industry to try to increase and improve technologies and a
17 lot of that really needs to catch up into -- into being
18 deployed to doctors and physicians and things of that
19 nature.

20 So we're hopeful that that is going on, but I think
21 that it was a very, very timely discussion in support of
22 what we heard with the blood lead reference value
23 workgroup. Leading into that, it sounds like they have
24 everything that they need in terms of moving forward
25 expeditiously to put together a draft and then, of course,

1 once they make a decision then it'll come to the -- the
2 group and then for that recommendation upward on the CDC.
3 So we are very thankful that that work is being done, very
4 thorough work, it's -- it's a lot of analysis of a lot of
5 information that is going on. So very, very timely, as
6 well, in terms of that.

7 And then we had a fantastic discussion about HUD
8 programs. I don't really want to have to say anything
9 about that. But, no, I'm just joking, we just -- just
10 learned, you know what, not only what we were doing, but,
11 you know, you know, im -- importantly I've always said
12 that -- I've always used the term "we" because, you know,
13 we at HUD and we collectively are all moving forward to
14 focus on outcome and I think it's important for us to, not
15 only continue the discussion, but realize that we are all
16 part of this solution. And -- and, again, I can't say it
17 enough but the solution needs to happen locally.

18 Everything -- everything that we -- we do should be
19 driving toward helping those locally in their efforts
20 since they are the ones on the ground really doing the --
21 the point-of-care work and the -- the neighborhood work
22 and we're doing our best to support that.

23 In terms of our discussion around surveillance and
24 ways to improve that, continuing education has always been
25 a key part of that so we talked about continuing education

1 to providers being able to understand that local health
2 departments really need resources and, you know, while in
3 -- increasing screening in doctors' offices is important
4 but being able to provide support for that, but the need
5 for better technology in the office setting. That sounds
6 like that is absolutely a need, you know, we only -- we
7 only, and I know Nathan knows this, there's a short amount
8 time when -- when families are -- are and parents are in
9 -- in the clinical setting.

10 So being able to provide as much information is
11 really key and then having them have guidance on what to
12 do with the results, you know, I think is -- is key. And
13 so learning about where technology is going in terms of
14 point-of-care testing is key. And then, you know the
15 whole wrap around, not just, again, in the clinical
16 setting, but outreach to the social service partners and
17 community leaders, I mean, this, again, this is a -- a
18 complicated issue and it demands a wholesome response
19 which means a lot of people involved. And we also need to
20 be aware of cultural sensitivities regarding screening.
21 And then finding ways to look for best practices to try to
22 adopt those, as well, both in terms of screening and
23 really anything else that -- that, you know, the issues
24 that we are trying to tackle.

25 We talked about research. I had given a whole list

1 of what the Federal Lead Action Plan workgroup was working
2 on and what they were focusing on. But we also heard
3 about research need in terms of hobbies, occupational
4 exposure, doing research on lab equipment, methods and
5 then Nathan had talked about, again, looking at
6 specifically what factors have led to a decrease in BLL
7 certain -- the BLL -- in certain communities which I think
8 is -- is a fantastic way to really gather a -- a set of
9 best practices for people to learn about. And then, you
10 know, identify those that really need screening. Talked
11 about soil lead research, of course, and what is needed
12 and what has been learned from that, I think that's key in
13 -- in putting that out, again, to make sure that we're on
14 the track of having a comprehensive plan, really,
15 comprehensive approach. And also a question of what's the
16 future of local surveillance programs, this is in general,
17 regarding where we stand and where the other agencies
18 stands and I think there is certainly an importance to
19 have an alignment of federal efforts no matter what it is,
20 no matter if it's research, no matter if it's our goals,
21 no matter if it is our efforts to make it easier for
22 people to, not only access their funding, but to not make
23 it harder for the agencies, you know, to really be able to
24 deploy their resources in a way that doesn't make it
25 harder for the end user. So that is always an -- an

1 important focus of our work.

2 And then the public comments, you know, we talked
3 about looking at source contributions and being sensitive
4 to that based on unique circumstances. And then looking
5 at the impact of a lower level on underserved communities
6 and that Dr. Jacobs talking about messaging, you know,
7 what the reference value really means and having it --
8 that be included as part of the analysis, as well, so that
9 people can understand, not only why things were decided,
10 but also having it easier to be understood. That's my
11 list.

12 **MS. RUCKART:** Great. Thank you, Matt. Before we
13 talk about potentially when our next meeting will be, I
14 just want to see if there's any other comments from the
15 LEPAC members on what Matt just discussed or anything else
16 from earlier in the day?

17 Okay. Well, it is Friday at about 3:30 and thanks
18 for hanging on as long as you all have. This has been a
19 really great productive meeting so as mentioned, next
20 steps include the full transcription of today's meeting
21 will be posted on our website, the LEPAC website, on CDC's
22 Lead Poisoning Prevention program's web page, as well as a
23 high-level summary and we will be in touch with the LEPAC
24 members to select a date for the next meeting and we're
25 targeting Spring 2021 and, you know, potentially we could

1 meet in person, if not, we'll meet virtually and we can
2 explore video options at that time and if everyone's in
3 agreement, we can have a video meeting.

4 So Pat, would you like to say anything in closing?

5 **DR. BREYSSE:** I just want to echo Perri's comments
6 and thank you everybody for your time and your input.
7 It's incredibly valuable to us and we couldn't have as
8 strong a program as we do without your help. So, thanks
9 again. Everybody have a good weekend. Please stay safe.
10 Take care.

11 **MS. RUCKART:** Thank you, Pat. I -- I am seeing that
12 Howard would like to make a final comment so can you -- do
13 you have audio capability, Howard, please go ahead.

14 **DR. MIELKE:** I think I do. I -- I just want to thank
15 everybody and I really appreciate the presentations and
16 the amazing work that is being done and hopefully we can
17 move towards a combination between, not only measuring
18 blood lead, but also measuring the lead in the environment
19 as a key part of the total package and I'm sure, you know,
20 we all think about it and it's important to do. Thanks.

21 **MS. RUCKART:** Okay. Thank you. Last call for any
22 final comments?

23 **CDR LEONARD:** Perri, this is Monica Leonard. I
24 wanted to again just thank everyone for attending today,
25 bearing with us through various weather challenges and,

1 again, thanking the advisory committee for all of their
2 hard work and -- and efforts as in preparation for our
3 second meeting today. We're excited as we are -- this is
4 National Lead Poisoning Prevention week and I think that
5 this is such an exciting way to end this week. So thank
6 you all so much for your efforts and your time.

7 **MS. RUCKART:** Yes, thank you, Monica. I completely
8 agree so I'm going to give you all back one hour so thanks
9 again and I look forward to our next meeting.

10
11 (Meeting adjourned at 3:27 p.m.)
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14

CERTIFICATE

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I, Steven Ray Green, Certified Merit Court Reporter, CCR A-2102, hereby certify that the foregoing pages constitute a true, correct and accurate transcript of the meeting heard before me, an officer duly authorized to administer oaths, and was transcribed under my supervision.

I further certify that I am a disinterested party to this action and that I am neither of relation nor counsel to any of the parties hereto.

In witness whereof, I hereby electronically affix my hand on this, the 23rd day of November, 2020.

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