CENTERS FOR DISEASE CONTROL AND PREVENTION

LEAD EXPOSURE AND PREVENTION ADVISORY COMMITTEE

(LEPAC)

MEETING HELD VIA ZOOM WEB VIDEO CONFERENCING

MAY 12, 2022 9:00 A.M.

PRESIDING OFFICER: PAUL ALLWOOD, Ph.D., M.P.H.,
DESIGNATED FEDERAL OFFICIAL, NCEH/ATSDR

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Transcript Legend

(sic) - Exactly as said.

(ph.) - Exact spelling unknown; spelled as sounded.

-- Break in speech continuity.

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

Quoted material is typed as spoken.

P R O C E E D I N G S

WELCOME AND ANNOUNCEMENTS

DR. ALLWOOD: Good morning, everyone. My name is Paul Allwood, and it is my pleasure to welcome you to CDC's fifth Lead Exposure and Prevention Advisory Committee meeting, also known as LEPAC. I am the Branch Chief for the Lead Poisoning Prevention and Surveillance Branch, this is our proposed name, the branch is in the Division of Environmental Health, Science and Practice in the National Center for Environmental Health at CDC. I'm also Designated Federal Official for LEPAC. As DFO I help to manage the overall operations of LEPAC, with the help of several CDC colleagues. And I also work in very close collaboration with the LEPAC Chair to ensure that meetings run smoothly. We are glad that you're joining us virtually for this meeting, and I'm pleased that we have over 200 people that signed up to attend this meeting.

Please note that audience members will be muted during the meeting. We have a full schedule and we will stick to the agenda times as best as we can throughout the day. And the meeting will be recorded and a transcript -- and a transcript of the meeting, as well as a summary of the meeting, will be posted on our website. It is now my pleasure to introduce Dr. Pat Breysse, Director of the National Center of Environmental Health, for a few opening

remarks. Dr. Breysse.

DR. BREYSSE: Thank you, thank you, Paul, and good morning everybody and -- excuse me for one second. I want to thank you for joining us, as you heard, our fifth LEPAC meeting. And I want to thank you for your continued commitment to helping us work towards eliminating childhood lead poisoning as a public health problem in the U.S. and eventually the globe.

And we're pleased to announce it's been one year since the LEPAC unanimously voted to update the blood lead reference value from 5 micrograms per deciliter to 3.5. It's been six months since CDC announced the update of the blood lead reference value formally. I want to thank you all again for your help and support in making that happen. In conjunction with the CDC, the American Journal of Public Health is publishing a supplemental issue on lead exposure prevention. The volume will present lessons learned in the field of implementation and work to provide insight for policymakers, with the goal of advancing the growing discipline of lead exposure science, evaluation and applied research. Currently the AGPH -- AJPH lead supplement editorial group is entering the initial stages of selecting the content for publication and supplement.

Today we're going to introduce the new LEPAC non-voting liaison members. We'll hear more about what

CDC has done to encourage the uses of the -- the update -- the -- the update of the blood lead reference value. We'll get updates on the Flint Lead Registry and get information on lead exposure work we're doing in -- in conjunction with EPA and other agencies in Clarksburg, West Virginia.

We'll also have discussions on infrastructure initiatives related to lead, lead in soil, lead in air and blood. We'll navigate in multiple funding streams at the local level, policy approaches to improve childhood blood lead testing rates, and get updates from LEPAC members on their related activities.

I'm pleased to join you today and I'm excited about the agenda we have for you today and I want to thank the west coast members for joining us so early in your day. I would hope it'll be a great day for everybody. And now I'd like to turn the meeting over to our Chair, Matt Ammon. Matt.

MR. AMMON: Thank you Dr. Breysse, and I echo Dr. Breysse's sentiments about the, all the hard work that we have done, and really the great progress that we have made. And the fact that it's a great agenda today, you know, it really shows that a very deep diverse set of subjects with a wide -- wide range really related to our work and, and I'm also excited that to -- to intro -- not

introduce, but to have the non-voting liaison members as part of this meeting as well to bring, you know, an important voice to -- to our work, and so we're excited to have you.

My name is Matt Ammon, I am the Chair, but I also -- my regular job, I am the Director -- HUD's Director of the Office of Lead Hazard Control and Healthy Homes. It has been my pleasure to serve as the Chair and to be with all of you and to listen to the -- what you are doing to advance this work, and hearing from you about ways that we can take that internally with our own agencies and our own work, and more importantly, how we can collaborate together and continue to collaborate. We've all been great partners in focusing on this work for several decades and it's great that we still continue with this work, learning from each other and learning from the advancements to help improve and offer additional protections to the families and the children and the residents that -- that we all focus on, and that we all serve.

So with that, I'll turn it back over to Perri to introduce the LEPAC members.

INTRODUCTIONS

DR. RUCKART: Good morning, everybody. I'm Perri Ruckart. I am the Deputy DFO, and I'm also the team lead

for program development communications and evaluation in the lead branch here at CDC and it's my pleasure to call on each of the LEPAC members to introduce themselves. I'll start with Tammy Barnhill-Proctor.

MS. BARNHILL-PROCTOR: Hi. Good morning, everyone. My name is Tammy Barnhill-Proctor. I am with the Department of Education and I am the group leader over the early -- Office of Early Learning there at the department in the Office of Elementary and Secondary Education. Glad to be with you guys today.

DR. RUCKART: Thank you Tammy. Jeanne Briskin.

MS. BRISKIN: Hi, I'm Jeanne Briskin. I'm the Director of Children's Health Protection at the U.S. Environmental Protection Agency. Thanks for having me join the group.

DR. RUCKART: Thanks, Jeanne. Wallace Chambers.

MR. CHAMBERS: Hello, everyone. I'm Wallace Chambers. I'm with the Cuyahoga County Board of Health and I am the Deputy Director of Environmental Public Health. Thank you.

DR. RUCKART: Thanks, Wallace. Michael Focazio.

DR. FOCAZIO: Good morning. I'm Mike Focazio. I'm with the U.S. Geological Survey, and I run our environmental health research program.

DR. RUCKART: Thank you. Nathan Graber. Are you

able to introduce yourself? Nathan is joining us -- oh, you are.

DR. GRABER: Hi. Good morning. Hi, I'm Nathan Graber. I'm a pediatrician from upstate New York. I was extensive in experiencing government overseeing programs that address lead exposure in both children and adults.

DR. RUCKART: Thank you. Kristina Hatlelid.

DR. HATLELID: Good morning. I'm Kris Hatlelid. I'm a toxicologist with the Consumer Product Safety Commission.

DR. RUCKART: Thank you. Karla Johnson.

MS. JOHNSON: Good morning. I'm Karla Johnson with the Marion County Public Health Department, Indianapolis, Indiana, and I am the administrator of the lead programs in that county.

DR. RUCKART: Thank you. Donna Johnson-Bailey.

MS. JOHNSON-BAILEY: Hello. I'm Donna Johnson-Bailey, senior nutrition advisor for the Food and Nutrition Service.

DR. RUCKART: Howard Mielke. Well, thank you, Donna. Howard Mielke.

DR. MIELKE: Hello. Oh, there we go. I'm Howard Mielke. I'm at Tulane University School of Medicine, and I work on environmental signaling and have been doing several decades of work on the impact that soil lead has

on the population.

DR. RUCKART: Thank you. Anshu Mohllajee.

DR. MOHLLAJEE: Hi. I'm Anshu Mohllajee. I'm from the California Department of Public Health, Childhood Lead Poisoning Prevention Branch, and I'm chief of the epi unit. Happy to be here, thanks.

DR. RUCKART: Thank you. Jill Ryer-Powder.

DR. RYER-POWDER: Yes. Good morning. My name is Jill Ryer-Powder. I'm the principle health scientist with Environmental Health Decisions, doing human health risk assessment and litigation support. I was actually the Chairman of the Blood Lead Reference Value group so very proud of all the work that the committee did, and I look forward to being here today. Thank you.

DR. RUCKART: Thank you, Jill. We also have a few members who are not able to attend: Erika Marquez from the University of Nevada, Tiffany DeFoe from OSHA, and Monique Fountain-Hannah from HRSA. And as Dr. Breysse mentioned, this is our first meeting having non-voting liaison members so I'm pleased to introduce Jamie Mack.

MR. MACK: Good morning. Yes, my name is Jamie Mack. I am the State Environmental Health Director in Delaware, and I am here as a representative of the Association of State and Territorial Health Officials, State Environmental Health Director.

DR. RUCKART: Okay. Thank you, and welcome. Ruth Ann Norton.

MS. NORTON: Hey. Good morning, everybody. I'm Ruth Ann Norton, President and CEO of the Green and Healthy Homes Initiative. And yesterday I celebrated my 29th year in this work and eradicating lead poisoning is at the heart of our work that our organization -- I'm calling you from Baltimore where we're headquartered -- and so honored to be a part of this. Thank you.

DR. RUCKART: Thank you for joining us. Patrick Parsons.

DR. PARSONS: Yes, good morning. My name is Patrick Parsons. I'm the liaison member representing the Association of Public Health Laboratories. My daytime job, I'm Director of the Division of Environmental Health Sciences at the New York State Department of Health Wadsworth Center. So I'm an analytical chemist by training and I had directed the lead poisoning lab as part of my work for the last 36 years. I also hold an academic appointment as a Professor in Environmental Chemistry at the State University of New York, University at Albany. Thanks.

DR. RUCKART: Thank you. Stephanie Yendell.

DR. YENDELL: Hi. I'm Stephanie Yendell. I supervise the lead poisoning prevention program for the

Minnesota Department of Health, and I am the liaison member representing the Council of State and Territorial Epidemiologists, or CSTE.

DR. RUCKART: Thank you. Amanda Reddy, are you on? Okay, we have another member, she was unable to join us today; it's Amanda Reddy, and she's from the National Center for Healthy Housing and hopefully she can join us next time. So I want to welcome all of the members, especially our new members. It's great to have you, and I will turn the meeting back over to you, Paul.

DR. ALLWOOD: Thank you, Perri. And welcome everyone, again, and you know as Perri said, we are especially excited to have our non-voting, non-voting liaison members. So at this time I'd like to share, you know, a brief summary of the -- of our last meeting, which happened in December of 2021. That was the, the fourth meeting of the Lead Exposure and Prevention Advisory Committee. It was held in December, December the 3rd, 2021, and there were about 175 people attending that meeting.

For that meeting the topics included were updates from Federal LEPAC members on lead-related activities that they were -- that their agencies were engaged in. A discussion about the 1988 CLIA amendment. There was an update on the lowering of the blood lead reference value.

CDC, EPA and HUD present, you know, made -- gave presentations on efforts that -- that each of these agencies were undertaking to identify populations at higher risk of lead exposure, our mapping efforts that were -- were aimed at identifying populations at higher risk of lead exposure.

There was also a presentation on local innovations which was given by the Lead Safe Cleveland Organization. There were updates from Federal LEPAC members on environmental justice efforts that were focused on lead. And there was a discussion on best practices for increasing -- and increasing and enhancing screening -- our lead screening in underserved populations. Additional details about the presentations and discussions can be found on the CDC's LEPAC website.

Since we last met the LEPAC Charter was amended to include non-voting liaison members who were just introduced. These members are from organizations with interest in lead poisoning prevention, including organizations representing states and local health department. These new members are, you know, welcome to the -- to the LEPAC and as you've heard from all of them, they bring a, you know, a breadth and a diversity of backgrounds and experiences, and we are really excited to have them become a part of LEPAC.

Today we will hear public comments from three members of the public. They include Mr. Tom Neltner who is a Director of Environmental -- at the Environmental Health, Environmental Defense Fund. He's a Director at Environmental Defense Fund. We'll also hear from Mr. Nathan Park who is a legislative assistant at Earth Justice. And we'll hear from Dr. Michael Kosnett who is an associate adjunct professor at Colorado School of Public Health. I'm going to share a few updates on CDC activities, you know, over the past several months. The CDC CLPPP recipients provided success stories, you know, to the CDC; we worked in close collaboration with them in developing these stories and now I'm pleased to announce that the -- those success stories are posted on CDC's Lead Poisoning Prevention website.

We are very grateful for the partnerships and the stories that reflect the hard work and dedication that our state and local partners bring to lead poisoning prevention, and I want to thank you on behalf of CDC for all of your efforts. We are continuing to support the Flint Lead Exposure Registry, and you will be hearing more about the -- the excellent work of the -- of the Flint Registry later on today.

The lead branch is also supporting community blood lead testing and lead reduction and mitigation efforts in

Clarksburg, West Virginia. And this is a community with, you know, elevated lead exposures and -- and that we have some representatives of Clarksburg that will be joining us today and they'll be sharing more about what they're doing in their community to help to deal with this problem.

The lead branch recently provided support to the United States Virgin Islands on a lead exposure situation involving a small child. The branch provided resources and materials and also recommended specific -- specific actions based on blood lead screening guidelines that we have published. Additionally, we will provide comments to the U.S. Virgin Islands on their standard operating procedures that they're -- they are developing for lead investigations. The lead branch also recently provided support to recipients -- we provided information on materials to recipients on the use of certain cosmetics among resettled Afghans. There's a product known as kajal or surma, I think there are other names for that product, as well. But it's primarily -- primarily used as kind of an eyeliner, it’s used on small children and it's known to be potentially contaminated with lead. We provided some informational materials and we also worked closely with colleagues in Wisconsin on, you know, specific concerns that they had regarding this product in that -- that area.

Now moving on to some of the partnerships and

collaborations that we have been engaged in in the past few months. We've had the opportunity to present to a number of partners and their -- our primary goal is -- is to raise awareness about the importance of blood lead testing in children because this is, you know, related to and -- and somewhat precipitated by concerns about decreasing rates of screening, you know, first as a result of the pandemic and then, more recently, as a result of -- of the recalls that led to shortages of test kits for the LeadCare point, point of care instruments.

Some of the partners that we presented to include the EPA's Office of Water, the Poison Control Center and Public Health Collaborations Community of Practice, the American College of Medical Toxicologists, the Council of State and Territorial Epidemiologists. And we are planning -- we're currently planning to present at the National Environmental Health Association's annual educational conference this summer. And in the fall we are planning to present at the American Public Health Association's annual conference.

So to wrap up this portion of the meeting, I would like to announce that we are sun-setting the blood lead reference value work group, and I -- and I take this opportunity to thank all the members for their excellent service on that work group. With that, I will turn the

meeting back over to Chairman Ammon.

MR. AMMON: Thank you, Paul. That was a great overview, you know, it's great to hear that, you know, obviously, us continuing the work to -- to focus on lead with both our historical programs that we have and expanding those and dealing with real world today problems, whether it's, you know, the lessening of screening or merging issues that we're seeing related to lead exposure in different areas related to water and other things going on. But -- but the core to that and -- and you ended it properly by talking about the collaborations that are really necessary, you know, both at the federal, state and local nonprofit community-based, philanthropic -- all of those are really important to make sure that we are all in -- in alignment with being able to address problems because, you know, I've said this many times that although we are working in different disciplines, we all have the exact same outcomes that we're working on.

So -- so hearing all that come together on a regular basis, both at CDC and I'll echo that at HUD, it really epitomizes not only the value of the work, but that our work matters, it really does matter. All of us make an impact every day in what we do and -- and working with our local partners, wherever they may be, in making a

difference in people's lives around the country. And again, it's great that -- that we focus on new issues that can come up, as well as dealing with issues that we've, we've been facing for quite some time.

And you also mentioned, gave a summary of the December meeting, which is -- which is important because as a matter of -- of order, we need to vote on the annual report. So the annual report was sent to all LEPAC members on April 21st. And I just want to give a brief moment, if there are any questions or comments to that report. Again, Paul gave an overview of -- of what happened during the December 2021 meeting and, again, a brief time if there's any LEPAC members have any questions or comments relating to that annual report.

Okay. Hearing none, it may be easier to say was there -- is there any LEPAC member that would not vote to approve the annual report; it'd be too hard to see hands, I think, if we held up. So hearing none then, for the record, a unanimous consent to approve the annual report for the record.

All right, thank you all very much, and really getting into the beginning of our -- our program for -- for today and with our presentations and, again, you know, looking at the agenda today, it's a really rich agenda focused on, again, what I mentioned about current issues

and systemic and -- and hearing from multiple parties about not only their work, but also what things that we need to hear about to improve, collectively, in terms of our work. You know, as we -- as we tackle these -- these issues that, you know, seem to get more complex, but I think the more we talk about the issues, the more we can ready ourself to address the issues.

So -- so with that I'm going to turn it over to Rio for our first presentation, which is an update on blood lead reference value post-implementation planning. Rio.

UPDATE ON BLRV POST IMPLEMENTATION PLANNING

MS. SCHONDELMEYER: Good morning, everyone. My name is Rio Schondelmeyer, and I am a health scientist at the CDC Childhood Lead Poisoning Prevention Program. Today I'm going to talk about CDC's blood lead reference value post-implementation plan. Next slide. I'm sorry, next slide, please.

During the May 2021 LEPAC meeting, the committee voted to recommend that CDC update its blood lead reference value or BLRV from 5 micrograms per deciliter to 3.5 micrograms per deciliter. The BLRV is a statistically derived population-based value used to identify children in the upper end of the blood lead distribution in the United States. The BLRV is based on the 97 and a half percentile of the blood lead distribution in U.S. children

ages one to five years, from the National Health and Nutrition Examination Survey or NHANES data.

The initial BLRV of 5 micrograms per deciliter was based on NHANES data from the 20 -- 2007 to 2010 cycles. In 2021, the reference value was updated to 3.5 micrograms per deciliter based on NHANES data from 2015 to 2018. Please note the BLRV is not a health-based standard or a toxicity threshold. The HHS Secretary and CDC were supportive of LEPAC's recommendation and on October 28th, 2021 the BLRV update was announced to the public during National Lead Poisoning Prevention Week.

So why did they promote this update. CDC developed and disseminated a press release, a Morbidity and Mortality Weekly Report, or MMWR, policy note, social media messages and communication briefs for state and local public health agencies, healthcare providers and state public health and local laboratories. Overall, the announcement of the BLRV was well received by partner federal agencies and external partners. And the implementation of the updated BLRV has been a success so far. However, there is still a lot of work to do to protect children who are at a higher risk of exposure to lead and to advance health equity. Next slide, please.

The goal of CDC's BLRV post-implementation plan is to evaluate progress towards using the lower BLRV and

associated impacts. Specific objectives of CDC's plan include evaluating success of implementation tactics using predetermined metrics, tracking the usage of the lower BLRV by state and local jurisdictions, assessing its laboratories by reporting blood lead levels categorically as less than 5 micrograms per deciliter or reporting actual test results under 5 micrograms per deciliter, including one place of decimal and identifying challenges and successes associated with implementing the lower BLRV. Next slide, please.

The plan includes four major approaches. This year nine CDC-funded CLPPPs will participate in surveys to help our branch gain feedback on the announcement of the updated BLRV and usage of the updated BLRV across the nation. In March 2022, participating programs were asked to provide feedback on the CDC's communication campaign about the updated BLRV. In October of 2022, participating programs will be asked to provide information about policy changes and usage of the BLRV. CDC may use this information to develop additional outreach materials to promote the updated BLRV and educate and inform audiences about its use and purpose. Next slide, please.

Our team will also review the required surveillance data submissions from CDC-funded state and local public health agencies to help identify if the updated BLRV has

been implemented. This review will include assessing if laboratories are reporting and recipients are entering and submitting data on blood lead levels between 3.5 and 5 micrograms per deciliter and if children with blood levels between 3.5 and 5 micrograms per deciliter are receiving appropriate confirmatory testing and follow-up services. Next slide, please.

Every year our branch distributes the Awardee Lead Profile Assessment or ALPA to our CDC-funded CLPPPs. The purpose of this assessment is to identify one, jurisdictional legal framework governing CDC-funded CLPPPs in the United States and two, strategies for implementing how-to blood poisoning prevention activities in the United States. We anticipate distributing the survey in June. Once the results are in our team will review the blood lead levels at which CDC-funded state and local health departments initiate various public health actions to identify the number of lead programs that have implemented the updated BLRV. This analysis will be conducted over five years to monitor jurisdictional policy changes. This analysis will inform guidance, resource development and technical assistance activities conducted by the CDC's Childhood Lead Poisoning Prevention Program. Next slide, please.

The fourth approach is a proficiency test of

laboratories across the nation, the updated BLRV causes -- or, I'm sorry, creates challenges, as well as opportunities for state, local and private laboratories that perform blood lead level testing. Some laboratories might need to reduce the reporting limit policies, adopt new repeat testing practices, improve limits of detection of laboratory developed tests, acquire new instrumentation and validate updated our new laboratory developed tests. In collaboration with the NCEH Division of Laboratory Services or DLS and some of the larger PT programs across the nation, we are hoping to distribute a proficiency test to detect a blood lead level between 3.5 micrograms per deciliter and 5 micrograms per deciliter sometime this year. After results of the proficiency tests are in, CDC will examine a number of laboratories that reported a value within the few criteria and the number of labs who determined the sample was merely below 5 micrograms per deciliter. Next slide, please.

Three of the four approaches outlined in this plan rely heavily on information provided by our funded partners, so we appreciate all of their support in our efforts. Additionally, as you heard Paul say earlier this morning, our branch has been collaborating with various partners to continue spreading awareness about the BLRV. I want to thank you for joining the LEPAC meeting today

and listening to my presentation.

MR. AMMON: Thank you, Rio. We have just a couple minutes if there are any questions from members here, and non-, of course, non-voting liaison members. Just give a minute so everybody -- do we have any questions or comments?

MS. NORTON: Matt, this is Ruth Ann Norton. Good morning, good to see you. I am, you know, deeply concerned about these testing rates. I chair the Maryland Lead Poisoning Prevention Commission, and we have an excellent staff at MDE who is really focused on getting these rates back up and forward. I know NBC just put out an article on this. And I may have missed this, Rio, I apologize if I did, but is there a sort of a collective campaign that we are looking at in our agency campaign or national campaign to focus deeply on getting people to get their kids back to the doctor, first of all, for lots of important things. And something that will be like a toolkit for states, nonprofits and others to use as we think about the coming school year where in Maryland we require lead testing before kids enter pre-K, kindergarten and first grade. So if I missed that I apologize, but I didn't know if there was really a thought in previous meetings about how we're going to have to double down and actually be better than probably we ever have in this.

DR. ALLWOOD: Right. And I -- I can speak to, you know, get us started on that response and Rio, feel free to add something. So this is Paul Allwood and I'm the Branch Chief for Lead Poisoning Prevention and Surveillance, CDC. So, you know, this is a great -- great question, Ruth Ann, and we have had -- actually been discussing this issue and looking at different ways that we can, as you said, get -- raise the awareness and get kids back in front of their providers. We recently had a meeting with the, the National Association of School Nurses and -- and being a part of the reason for meeting with that group is because, you know, obviously, they -- they can play a critical role in helping to ensure that, you know, little children who are in school have appropriate health -- healthcare and health services. And so part of our discussion with them is to develop and share messages with parents and providers, and, you know, other stakeholders about the issue of, you know, needing to increase rates of screening and, you know, we had a really good meeting and we're -- we're planning to -- to do some collaborations with that group to, as you say, get the word out about the importance of having, you know, kids tested for lead.

MR. AMMON: Thanks for that response, Paul. Any other questions for CDC?

DR. RUCKART: Yeah. Matt, two -- two members have their hand raised. I see Jamie and Patrick and after that I think we might need to move on to the next session, but let's start with you, Jamie.

MR. MACK: Yes, thank you. I just wanted to echo Ruth Ann's comments about the challenges that a lot of states are facing with testing rates. Delaware I know is in the 20 to 30 percent area in compliance with our testing rates, and discussions with other states, I know that it's a common issue across the country. So I just wanted to thank Ruth Ann for bringing that up and, again, echo those concerns.

DR. RUCKART: Thank you. Patrick.

DR. PARSONS: Yes. So, you know, can you expand a little bit on this proposal to conduct a PT this year in that concentration registering three and a half to five micrograms per deciliter? Specifically, what criteria will be used to judge whether a reported result is acceptable versus unacceptable. And is this going to be conducted by CDC or will it be something that is conducted in collaboration with an existing PT program provider?

MS. SCHONDELMEYER: I can speak to that a little bit, but I'm also not a laboratory scientist so I probably can't provide the most satisfying answer. We are working with outside PT programs, such as the Wisconsin PT program

to conduct these tests, so I do know that much. As for the criteria and the data analysis, I'm not sure. I can get in contact with our partners in DLS and have them provide a response and get back to you.

DR. PARSONS: Thanks.

MR. AMMON: All right. Thank you very much, Rio, for that presentation, and before we move on to the next presentation I do want to introduce another non-voting liaison member, Dr. Lauren Zajac, if you want to introduce yourself.

DR. ZAJAC: Sure. Hi, everyone. I'm Lauren Zajac. I am a liaison from the American Academy of Pediatrics and I am based at Mount Sinai in New York City, where I am Medical Director of Environmental Pediatrics. Thank you for having me.

MR. AMMON: Welcome and thank you for that. So on to our next presentation, we have a great panel that will talk about the updates to the Flint Lead Registry. So with that I'll turn it over to Mona.

UPDATES ON THE FLINT LEAD REGISTRY

DR. HANNA-ATTISHA: Hello everybody. It is great to be here. It's so wonderful to see so many familiar faces. I just want to start by thanking you all for your service, nationally, to eliminate childhood lead exposure. So thank you for what you're doing and what you have been

doing for, for literally decades, so it's an honor to be here with you.

So my name is Mona Hanna-Attisha. I'm a pediatrician professor of Michigan State University. I run something called the Pediatric Public Health Initiative in Flint, Michigan. I'm here today with my buddy, Dr. Nicole Jones, who is the Director of the Flint Registry, and we want to give you an update specifically on the work of -- of the Flint Registry. Next slide.

So we're going to just briefly review the, the Flint water crisis and the background of the Flint Registry. We'll talk about our numbers, how enrollment's been going in the Registry, what we're beginning to find. We'll go through one of my most exciting subprojects of the Registry, which is our Flint lead-free work. We'll talk about our next steps, the ripple effects of our work in Flint at a city, state and national level. And then we hope to have some questions and discussion. Next slide.

So just kind of a quick review since it's kind of been a minute of kind of what happened in Flint and -- and why this Registry, is so -- so important. So the, the Flint water crisis began a little over eight years ago in April of 2014 when the city under kind of this state of usurped democracy under financial emergency management decided as a cost cutting move to change our water source

from -- from the Great Lakes to the Flint River. If you guys see Nicole right now, she's got a beautiful map of Michigan behind her. This was accidental, but it works perfectly.

So Michigan is surrounded by the Great Lakes and for about a half a century we were getting our water from -- from Lake Huron that we bought from Detroit, but then in April of 2014 that water was switched from the Great Lakes through Detroit to the Flint River. The water wasn't properly treated, it was missing a really important ingredient called corrosion control and that made the -- the lead that was in our plumbing come out of our plumbing and into our drinking water. So that went on for about a year and a half and I just happened to have with me a lead pipe, not that we should all have lead pipes with us.

So this was our prop at a recent Congressional testimony. This is actually the first lead pipe that was excavated in Flint, this is a lead service line. And the corrosive water that was flowing through these lead pipes kind of ate up our pipes. When our friends from the EPA finally came in, they said, it was almost like you were drinking through lead painted straws and you never knew when a piece of scale was going to come off these pipes and into our drinking water. We had lead and water levels in the tens, hundreds, thousands and even tens of

thousands of parts per billion and we know there's no safe level of lead. The EPA has a maximum level contaminant -- maximum contaminant level goal for lead in water at zero parts per billion. The FDA has a lead in water action level of five parts per billion. For bottled water, the action level for the EPA for water system is at 15 parts per billion, but not health-based and, like I said, we had -- we had lead and water levels in the thousands and tens of thousands of parts per billion for quite some time.

So that's kind of a bit about kind of what happened. Our team did the research that -- that found that our kids had elevated lead levels. It's specifically more in the areas where the water lead levels were the worst and nothing really happening outside of the city limits; that was publicly shared. It took a while, but we were finally able to get back to Great Lakes water in October 15 of 2015. But our pipes, once again, were so corroded that the -- the long and hard work of replacing our lead pipes then -- then began. We were a federal emergency that was declared in January of 2016 where we got to welcome so many of our friends from the CDC and that's when we first got to meet Pat. Hi Pat, so good to see you. This work would not be possible without the support of Pat and so many folks at the CDC. And then it took a minute, but the, the WIIN Act, which included the funding for our pipe

replacement was passed in December of 2016. And in that funding also included the funding for the first four years of the Flint Registry.

Until then we were also fortunate to get funding from the state of Michigan, the Michigan Department of Health and Human Services to plan to build a registry, so we got a planning grant. In early 2016 that kind of built the framework, got us to hire Nicole and start building a team on how to kind of do this work in a very community partnered way. And the official funding for the Flint Registry from the CDC began in August of 2017.

So the first four years, that was a four-year grant. It was continued for one more year, so we are wrapping up our first five years, which is amazing, of the Flint Registry. And then I think the deadline was yesterday -- a couple days ago we just submitted our five-year renewal for the Flint Registry. So as we all understand the science of lead and the science of trauma we know this is long-term longitudinal important work that needs to happen to find folks that were exposed to the water crisis and get them connected to secondary prevention resources. Next slide.

So our kind of big goals of the Flint Registry, which were set forth by the CDC was that participants of the Registry will use preventive services, will reduce lead

exposures where folks live, work and play. Other participants will experience better health and fewer developmental delays. The data collection, will lead to increased knowledge about the effectiveness of different types of prevention services, leading to improved outcomes that we will lead to increased quality and quantity of data to inform policy and program administration for lead poisoning prevention and elimination. And that we will lead to increase knowledge of about the acute and long-term impacts of lead exposure. So these were like the -- the big -- big goals of the Flint Registry. Next slide.

So a little bit about our community outreach kind of marketing and recruitment and I just want to share, like, you know, doing this work in Flint, you know, and continuing to kind of practice in Flint is, you know, has -- has -- has so many challenges, because this is a community that has really lost trust with -- with institutions, and this didn't just happen at the water crisis, this kind of this longstanding kind of lost trust and neglect because there's so many systemic inequities that have made it really hard for the people of Flint to be healthy and successful.

So, and remember I also shared that the water crisis was this kind of bizarre state of usurp democracy where

people were loud and brave and organized, but their voices were being dismissed and silenced. So we knew that if we were going to do anything in Flint it had to be done in a way that was informed by participatory democracy and self-determination. This work had to be hand-in-hand with our community partners for it to be successful. So we built, you know, we spent a lot of time planning and -- and, you know, that -- that logo you see in the corner, that was actually created by a member of our parent partner group and advisory group who said, hey, why don't you choose -- why doesn't the logo for the Registry, maybe we should make it the Sankofa bird and it's this mythical bird from East Africa that's flying forward so speaking of our visionary spirit, but the bird is looking back, we're never forgetting the past and what happened and the kind of historic injustices and -- and that bird has an egg in its mouth, which is about eating our young -- just kidding -- it's about prioritizing our young and making sure that our, you know, our kids' future is -- is first and foremost. So even our logo was developed by -- by a Flint resident. So, you know, they went through our survey and they added questions and made sure we took away questions, and, you know, everything that you see here today, this entire presentation is in partnership with, with our impacted community. Next slide.

So these are some and not all of the ways that we have been very deliberate to -- to do this work in partnership. I mentioned, we have a group of parents that advise us, we have a group of amazing kids that advise us; they've named themselves the Flint Youth Justice League and these kids are national leaders. For example, when Newark, New Jersey had a similar water crisis, our kids were Zooming with Newark kids and telling them what a part per billion was. So they've really taken, you know, taken this advocacy to a different level. The -- one of the first things we did when we got funding for the Flint Registry was establish a Community Advisory Board, which is now kind of five plus years on. We've done focus groups with different subsections, our deaf community, our, you know, Hispanic community, education, and the list goes on. We got thousands of bits of feedback when we started pre-enrollment which was where we just asked people are you interested in the Registry? Like, what do you want out of this Registry? Lots of local presentations, hundreds of community and Registry Ambassadors. Our team has hired, the Flint Registry, we have a director of community-based implementation and engagement, so at a leadership level. We have a local Community Ethics Review Board that has also kind of reviewed and approved everything that the Registry does.

So just a couple, not all, of some of the examples where this work has been done, once again, in partnership with the impacted community. Next slide.

Lots of partners just, you know, probably I'm sure we're missing folks here of -- of folks that we work with and at the city and -- and kind of state level to -- to make this project happen. Next slide.

And lots of kind of innovative marketing and social media messaging. Once again leveraging, you know, trusted community members collaborating with other partners to do kind of co-outreach. For example, with our county mental health association or others that are already doing outreach and kind of tagging along and sharing similar messaging. There's a lot of folks in Flint doing great work, trying to get folks connected to a great thing so really kind of leaning on those partnerships to -- to not be duplicative. And one of our most kind of exciting marketing pieces that have come out recently is our inaugural report, which really reflects on kind of the first four years of -- of kind of where we've been and where we hope to go. We -- we mail, you see those masks so we, we mailed every Flint resident, two masks at one point. I guess now they should have been like N95s, but we didn't know that much then. And it's wonderful, you go around the city, you see tons of people wearing Flint

Registry masks. So, you know, supporting public health in many ways, but also doing a lot of kind of branding and getting more folks enrolled. Next slide.

So our recruitment and our outreach, it goes -- does broad marketing and we try to, you know, have a lot of visibility in the community. We also do a lot of targeting recruitment; we've been fortunate to have relationships with the state and other organizations to -- to get lists of folks that we consider high risk to -- to make sure that they're enrolled in the Registry, and this is kind of really the direction where we're going to be going in the next phase of the Registry, really going after the -- the youngest children during the water crisis, the zero to six kids. This was also done in partnership with a HRSA Healthy Start grant. We've already enrolled 33 percent of those kids that were in that age group and our target there was 25 percent, so we've exceeded that goal. Really going after the kids who, during the time of the water crisis, had a blood lead level greater than 5 and maybe we'll go down to 3.5. Our testing rates were really low at that time, so you know we don't consider this as the only marker to exposure. And we're almost at that goal of getting all those kids. We also know, every address, what kind of pipe they had because, you know, we've done, the city's done some

innovative mapping with some partners. So we are making sure that folks who lived in homes that had a dangerous lead service line which, which is either lead or a galvanized pipe that were -- they're being heavily, you know, targeted for -- for enrollment in the Registry, as well. And then, lastly, with a partnership with HUD we are working with a team at the University of Iowa to develop an address-specific lead in water score. So really trying to figure out how much lead was going into every address and that score is going to be a combination of what kind of pipe they had coming into their home, you know, the water usage, because we know that flow rates and the kind of volume of flow also determines potentially how much kind of lead may have been in that water and other variables to -- to also kind of target high risk folks to enroll them in the Registry. So we're trying to apply some really cool science to go after folks who aren't enrolled yet to make sure that they have the benefit of being part of the Registry so that we can see how they're doing, but more importantly, that we can connect them to secondary prevention resources to mitigate the impact of the exposure. Next slide.

I'm going to pass it on to Nicole who's going to talk about the process and the numbers.

DR. JONES: Great, so I just want to spend a minute

talking about sort of the infrastructure of the Registry that we put in place and how that maps back to our public health goals and how it creates our future infrastructure to really utilize the data to understand more about the impact of the water crisis. So when people enroll in the Registry, they complete their eligibility screening and their consent. Our consent process is granular so individuals can choose which parts of the Registry they'd like to participate in. About 84 percent of adults choose to not only be in the Registry, but they also choose to be part of the referral process. Eighty-nine percent of adults also consent to be contacted about future research projects. And then 71 percent of adults allow us to not only take the Registry -- participate in the Registry, but also allow us to connect to MDHHS data sources, through their consent process. So allow people to, like, we kind of allow people to choose what -- what pieces of the Registry they'd like to participate in.

Our baseline survey is focused on service utilization, the physical -- the impact on physical and mental health, as well as child development. We use the questions from the baseline survey to allow us to make referrals to service providers, where over 30 services that we are currently referring individuals to. And once we make a referral the service providers then follow up

with individuals to get them sort of completed and connected to services and programs. So as I stated we're also working on linking to MDHHS data sources and other external data sources that will enhance the Registry data. We're also working with partners at the University of Michigan to create a virtual data enclave, which will host de-identified data that will be available for external researchers to use in the future.

We, again, linking back to our public health goals of looking at health and development over time, we implemented a one-year follow-up survey that we completed during the first five years of funding to again look at health and development over time, but also connect people to services. And then our long-term plan is to continue to do survey waves and continue to make referrals to services. Next slide, please. Next slide, please, sorry.

So just our -- this is, these are the numbers again as Mona talked about the inaugural report that we shared back with all of our enrollees, as well as community partners as part of our inaugural report that went out. I'm just looking at our progress over the first four years, we've enrolled 16,000 individuals in the Registry. Our goal is to get to 20,000, which is about 20 percent of the residents that lived in the city of Flint at the time of the water switch, and we are getting very close to that

goal at this time, so moving forward. Next slide, please.

Just to tell you a little bit about who's in the Registry, so about a third are children; that means parents are completing surveys about their children. About two-thirds of our enrollees are adults. I'm looking at where people lived at the time that they enrolled in the Registry; about 80 percent of individuals who enrolled still lived in the Flint area, 11 percent are still in the county, four percent somewhere in Michigan but outside of the county, and then we have a small percentage of individuals who moved outside of the state, but still heard about the Registry and were able to enroll.

As Mona talked about marketing and outreach, the three different ways that we kind of connect with individuals in the Registry are through marketing outreach in our list-based approach, which is where we target lists of individuals who are potentially eligible. That might be a list that we get from a partner hospital or a list from the Michigan Department of Health and Human Services, as well as look on targeting local -- our current residents of the city of Flint. So we also keep track of how individuals hear about the Registry, and as Mona talked about, our Ambassador Program. One of the top ways that individuals hear about the Registry is through the word of mouth. We're also looking and continue to look at

how we're doing with regards to the distribution of enrollees across the city of Flint, and this is again based on residence at enrollment and we've been using this sort of strange and continuous (indiscernible) they do targeted outreach to make sure that we have an even distribution of enrollees across the city of Flint. And then, finally, we developed a process with community input that was multimodal so that people could do their surveys online or over the phone or through the mail or in person, what really worked best for them. Obviously, with COVID we had to change that strategy a lot. Online is the number one way that people enroll in the Registry, but there are a significant portion of people who prefer to have the surveys read out loud to them over the phone. So our recruitment strategy includes lots of emails and text messages and mailings and phone calls to really encourage people to complete their surveys. So moving forward to the next slide, please.

Again, we're focused in four key areas when we're making referrals related to lead exposure. Health, that includes mental health, physical health, dental health services for adults, services for kids and services for -- that are more targeted towards seniors, child development. Obviously, as our population ages and we get further away from the exposure we're making further -- fewer referrals

in this area, but we're still continuing to make a lot of referrals for kids to the Neurodevelopmental Center for Excellence which I'll talk about in a second, and then nutrition programs. Next slide, please.

So with regards to where we're making referrals, the number one referral for us, for both adults and kids, we total all together is lead -- our lead elimination services. About 67 percent of participants who enroll in the Registry receive at least one referral. People may not get a referral either because they didn't consent to be part of the referral program because they're not eligible for the services that we are enrolling them in or maybe they've already enrolled in those programs, and on average for individuals who are receiving referrals, they receive about two per participant, but we have some referrals who -- families who've received over a dozen referrals to services. Next slide, please.

And then just giving you sort of a snapshot when we started, we really didn't know what was going to be the most important services for families. For adults we made a lot of referrals to the pipe replacement program. People, at their request, want to be connected to that program. We also are a second most common referral for adults is to our community mental health provider and we'll make that referral, again, if either an adult asks

for a referral or if based on some of the screening questions that we have related to mental health, we feel like they would benefit from a referral to a mental health provider.

The other top three referrals for adults are all related to food support. That's emergency food support or longer term support through programs like SNAP or our Double Up Food Bucks program.

For kids you can see, there are a lot of referrals made to the Neurodevelopmental Center of Excellence or NCE. This is a referral that we make if a child screens high on one of our behavioral assessments that the parent is completing, so we, again, think they would benefit from a referral for a complete neuropsychological assessment or if a parent makes a request. And then rounding out the Lead Safe Home Program, we make a lot of referrals to that program, as well as access to healthcare, nurse case management for elevated blood lead levels; maybe parents reported that they haven't been connected to, as well as child dental services. So moving forward to the next slide, please.

So just really quickly, like, what are we hearing? How are people doing? Just a real big snapshot when we ask adults about their physical health, you'll see that, in the category of for -- fair or poor, we have over a

third of adults who are saying that their physical health is fair or poor, the same thing for mental health, about the same percentages that we're seeing adults rate -- rate their mental health as fair or poor. Moving down to the next slide.

When we asked parents of -- or adults about stress or pressure, just thinking about what they're dealing with on a daily basis, again looking at a perceived stress score, we see that our adults are reporting a lot more stress or pressure on a daily basis as compared to what we sort of expect from national norms and that especially our young adults have the highest levels of perceived stress or pressure. Next slide, please.

We're hearing a lot about financial stress for families. This is just a couple of questions about covering basics like food and housing. If you look at that -- that particular question, you'll see that 11 percent plus 35 percent is 46 percent, almost half of our families are saying that it is very hard for them to cover basics like food and housing, and again, as you saw from our referrals, a lot of families are struggling with food. So half of our families say they can afford enough to eat, but not the kinds of foods they should eat. And then 17 percent of our families are dealing with situation where sometimes or often they cannot afford enough to eat. So

moving to the next slide.

And then, just how are kids doing as how are parents, like, what are their concerns about their kids. About ten percent of parents report their child's physical health as fair or poor, and then a higher percentage, 16 percent of parents are saying that their child's mental health is for -- fair or poor. And the next slide, please.

And then this is just the final sort of deeper dive that we're looking at is, specifically, looking at behavioral health and what kids might -- behavioral health might look like in response to everything they're dealing with their environment, including this exposure to lead. This is one of the standardized assessments that parents are completing about their child at baseline. It's called the BASC, and in this particular slide I'm showing you four different domains of behavior: externalizing problems, internalizing problems, behavioral symptoms and adaptive symptoms.

I'm also splitting this out by age and gender. So there are three different types of assessments: preschool, school aged and adolescent and then split -- splitting for males and females. And what you can see, by this line going across this 15.7 percent based on the standardized assessment, this is where we sort of expect the number of percent of children to -- who are at risk or score at risk

are clinically significant on this particular instrument. This is the percentage that we expect, and you can see for our kids across all domains, age groups and genders, they're scoring much higher. And Mona I don't know if you want to take over from here, you can also talk about like, all right, this is what some of the first -- first work that we're kind of releasing from the Registry is part of -- also as well, so.

DR. HANNA-ATTISHA: Yeah. There's a -- this is about -- this work about children's behavior is about to be published in a -- in a journal, I think, within the next month or so and we'll share that. So we -- we now have the data, a lot of data, huge sample size, 20,000 participants to really be able to answer that question of how people are doing. Once again, this work is longitudinal. If we respect that kind of science of lead, we really have to look at this over time, which is -- which is our goal and our intent over the next few years. Next slide.

So on to Flint Lead Free, so a kind of a task of the Flint Registry is to look at, obviously, overall lead exposure, reduce overall lead exposure. So next slide.

We created a workgroup with many sectors because everybody who works in lead knows that you have to have all kinds of folks at the table. So we have our partners

from government and healthcare and early childhood in the schools and -- and landlords and the community foundation and philanthropy. So lots of folks, Healthy Housing partners, lots of folks at the table to convene the -- this other kind of subgroup called Flint Lead Free where -- with a goal of eliminating lead exposure. And -- and we really kind of think we can do this because, you know, we're a city that's primed; we know about lead. We're a city that's now just one of a handful that is eliminating all their lead pipes, but obviously that's now become an -- going to be a national story. We are part of the Lead Safe Home Program which we were chatting about in the -- in the chat. It's the -- a CHIP, we received a CHIP -- the state received a CHIP/SPA waiver that allows us to do primary prevention, where kids on Medicaid and CHIP can get a free home inspection and abatement that's not related to a lead level, so lots of, and we have a HUD grant. We have lots of other resources in place and -- and committed folks who are -- are working to -- to eliminate lead exposure. So we have these comprehensive reports that we've been able to put out, we've put out two, they're on our website, where we look at kind of the burden of environmental lead that we've been able to reduce and, you know, the impact of that. We've even worked with our lead economist friends, folks at Altarum

who did the, the lead econo -- lead economic work for the Pugh Robert Wood Johnson report a few years ago where they've been able to put a city level price tag or city level savings actually on our lead elimination work and -- and just in the first few years of this our prevention activities by replacing lead pipes, by abating homes, has generated -- or is expected to generate $53.3 million in future economic benefits. So we're, you know, we're really excited about this city specific work and -- and our hope to -- to kind of share what we're doing but also to kinda continue to work to -- to eliminate all kinds of lead exposure that our kids face. Next slide.

So the next steps for the -- for the Flint Registry is, you know, working even harder to get those high risk groups enrolled -- enrolled in the Registry, so that, once again, they can benefit from the Registry, ongoing surveillance and cohort maintenance, doing follow-up survey waves. A lot of the Flint Registry is modeled after our friends at the World Trade Center Registry, kind of helped get us connected to them many years ago. And you know they do survey waves every five years to see how their cohort is doing and, you know, we're planning on another big survey wave to -- to continue to follow-up the folks, maintain our cohorts, stay connected, share communications, share different resources, new resources

with the folks that are already enrolled and, and we're really close to that 20,000 number which -- which has been our goal. And then, obviously, ongoing evaluation of our data. We have lots of data that we haven't even looked at, so much data. If anybody wants to work for us, let me know, we'd love to hire you. And then continuing to kind of inform policy and practice based on -- on what we're learning. Next slide.

We've been able to already kind of build the infrastructure to support, like, side projects and other research projects this -- the Registry is just this amazing database of folks and I'm just going to share two projects, there's -- there's more, you know. One is a grant that one of our -- our research colleagues received to reduce COVID disparities and he's tapping into the Registry database to recruits to address antibodies for COVID, and -- and how to reduce disparities of -- of COVID exposure. My favorite project is -- is Flint Tooth FAIRY. This is funded by the Robert Wood Johnson Foundation. We're tapping into the Registry database to recruit children who were the youngest at the water crisis, who are now just losing their teeth. So all of us in -- in lead know that, you know, teeth were -- have always been a critical part of our story, you know, our Meal Menus Teeth and in Philadelphia to look at how kids were doing. So

we're -- we're doing a little bit of a fancier analysis with our partner at Mount Sinai who probably many of you know, Manish Arora, who's looking at teeth from -- from Flint kids who were the youngest of the water crisis which we've really been unable to kind of historically assess their exposure. These kids did not get their blood lead levels, lead in water affects a younger age group than the kids who are -- who are usually our partner surveillance programs. So we've collected hundreds of teeth, literally hundreds, we get teeth in the mail all the time, it's bizarre, it's wonderful. And we're -- we're -- the Registry if, you know, it's that infrastructure that's allowing folks to participate in future kind of research -- research projects and that's all based on their consent.

We have also been able to connect folks to other resources that have come up in the community. One of our community partners received a grant to connect kids who have a lot of ACEs, early adversities to the earned income tax credit so, you know, we've also been able to leverage our infrastructure to respond more readily to the pandemic. One of the bright linings of -- of COVID is that, you know, for Flint is that we had just come off one public health crisis and then into another public health crisis but we had already built this infrastructure,

specifically, the Registry that connected people to things that they also really needed in COVID, like food and trauma informed care, and access to a medical home, and enrichments for children. So that infrastructure was readily, you know, leveraged for -- for COVID, as well. Next slide.

So other kind of Flint updates, so I brought my pipe, so Flint's almost done. I've been saying this for a long time, almost done replacing our pipes and I think it's a couple months away there's some really hard to reach addresses but that's fantastic news. The story for -- of in regards to accountability and justice is ongoing, there was a settlement with the civil cases, the criminal cases are still ongoing. The -- the Flint -- Flint received a Medicaid waiver that increased the age and eligibility of Medicaid to 21 years of age and 400 percent of poverty. That was renewed for another five years, which is phenomenal. The Medicaid waiver also included some family supports and home visiting. I've already mentioned the, the CMS, CHIP/SPA Lead Safe Home Program, this primary prevention program. And I hope -- I saw Karen on the agenda. Karen's wonderful. I hope she talks about that too. But that has been a fantastic model. I know other states, including Maryland, have also received this -- this -- this waiver to do primary prevention for lead --

for lead exposure.

After the water crisis, the Michigan Child Lead Exposure and Elimination Commission, a statewide Commission was -- was set up, a permanent Commission. I serve on -- as the Vice Chair and we've also been able to really move at a state level to -- to -- towards primary prevention and -- and look at different kind of policies and programs that we can -- we can do.

Michigan has a model Lead and Copper Rule which even exceeds the new national standard that improves kind of sampling for lead in water, that has picked up more action level exceedances, also known as ALES and -- and we'll eventually lower that lead in water action level, as well, so that's something to be applauded.

We are excited about the EPA Lead and Copper Rule revisions. We think they could be even better, but they're still an improvement in terms of reducing lead in water exposure. We are super excited about the National Infrastructure Investment and Jobs Act, which is the largest investment in -- federal investment in lead in water elimination. It's not all the money to remove lead pipes in the country, but it is still a significant effort that is, obviously, primary prevention that -- that removes lead service lines.

And then I think, you know lastly, we have been so

kind of blessed and privileged to be a resource for so many other communities to -- to kind of strive to get at what we all want to do here, which is eliminating all sources of lead for -- for all children and definitely reducing those disparities and inequities that exist when it comes to lead exposure. Next slide.

That's all we have. We look forward to any questions and comments. This was just very superficial kind of going over everything, and this -- we can share a lot more information if anybody would like about what the Flint Registry is and what we're doing. Thank you, everybody.

MR. AMMON: Turn it over to Perri for a quick comment.

DR. HANNA-ATTISHA: Perri, you're on mute, Perri.

DR. ALLWOOD: Yeah. This is Paul Allwood. Perri had been having a little bit of internet problems, Matt. So...

DR. RUCKART: No, I'm here.

DR. ALLWOOD: Oh, you're there, Perri? Okay, great.

DR. RUCKART: Sorry. Yeah, I just didn't want to come off mute too soon and then you run the risk of not coming off at all, which is what's happened. But I just wanted to remind all of our members to please limit the chat -- the chat for questions of a logistical or technical nature and that way I encourage you to voice all

of your comments or questions so that the audience and the other members get the benefit of the responses. So thank you.

MR. AMMON: Thank you for that. We have, unfortunately, three minutes to open up for questions. That was an amazing, amazing overview. I really appreciate it. I'll do the quick second where this is really about taking the opportunity and looking at things in a holistic way. I think the wrap-around services that you all provide regardless of the entry, whether it's home-based or medical-based, you know, it's really amazing because you're not looking at these things in isolation but really as collected -- collective impact, sorry, and connected impact so it's just amazing what you all have been able to do. And -- and, of course, you had mentioned the WIIN Act of -- of 2016 which also helped establish this advisory committee. So fun fact in terms of the connection. So I will open it up for those who have questions or comments and I will scan the participants to see if anybody has any questions or comments. We only have about two minutes. I saw an earlier question from Ruth Ann which was already answered.

DR. RUCKART: Howard Mielke had a question. Howard, did you want to ask now?

DR. MIELKE: Yes, I did -- I do. Mona, I really

admire the work you've done and the way in which you've pulled so many people together and done the work. I was wondering if you've done any work on the outside environment, such as the play areas of the children. I'll talk more about that later, but it's just one question occurred, I think needs to be answered.

DR. HANNA-ATTISHA: Yeah. That's a great question. We, our team, specifically has not done that. We have partners that do a lot of work with soil. Michigan State University is a kind of land grant extension school that has done for a long time, soil testing. There's another group of local farmers called Edible Flint that also does kind of soil testing. We had a post-manufacturing city -- post-manufacture city with a lot of contaminated sites and we also have a lot of demolition happening with our land bank and different things. So, you know, there's -- there's one of the notes in our Flint Lead Free Report is that we need to do a better job looking at all of these other kind of potential sources of lead and making sure that any kind of demolition work, you know, soil work whatever how, you know, is done in a way that doesn't create more lead exposure. Something that we have been able to do when it comes to play spaces, our Flint Kids Fund built ten new playgrounds, you know, because obviously children also need to play. So making sure that

all of these -- these new things are done in a way that also doesn't increase lead exposure.

MR. AMMON: Thank you for that. Well actually we're going to move on to the next presentation, but I really appreciate your presentation. Obviously, it's just amazing what you all have been able to accomplish and -- and we are here to support you in that effort and please keep us in mind if you need something from us. We have a lot of agencies on -- on the -- on the panel here, but just keep us updated and we wish you best and again we're here to help.

DR. HANNA-ATTISHA: Thank you, and once again, thank you to all of you for doing what we do -- you what you do. Take care.

MR. AMMON: Thanks again. So, moving on we'll hear an update about lead exposure in Clarksburg, West Virginia, which we -- many of us here are now part of working toward the -- that solution and I will turn it over to Paul.

INFORMATION ABOUT LEAD EXPOSURE IN CLARKSBURG, WV

MR. ICE: Hi. Thank you. My name is Paul Ice. I work for the Office of Environmental Health Services. I was the one who actually did the lead assessments and started all this process in Clarksburg. So could you go to the next slide, please.

So this presentation we're looking at three homes that actually started this investigation into the levels of drinking water. We're also going to talk about some of the corrective actions, some of the education outreach that we've done, some of the efforts to increase blood lead testing in Clarksburg, Harrison County, and even expand that through the entire state of West Virginia. These lead assessments were conducted between September 2020 and April 2021. And there were three homes that are all located within the city limits. The first two homes, I mean, there were within a half a mile of each other and one other home, you know, those three miles from the first home. And all three of these homes do have the same public water system, but we want to make a special note, we've been saying this all along, that there were other environmental lead contaminants that were found in the homes, so there were other reasons other than the water that the children in these homes could have had elevated blood lead levels. Next slide, please.

So the -- just wanted to throw these out there for those who don't know the action levels. So for soil, anything over 400 parts per million, we consider a positive for bare soil. And water, it's over 15 parts per billion. Window sills, a hundred micrograms per square foot. On floors, ten micrograms per square foot, and on

paint chips, over 5000 parts per million. And you'll see me use first draw, just define that that first draw is that the water has been sitting in the pipes for at least six hours. Next slide, please.

So Home 1 was referred to our program in August of 2020. It was referred to us by another office, which we'll be talking on the second part of this slide. The assessment was completed in September. This home was built around 1920. So we had some positive x-ray fluoroscopes, XRF; this is a machine that will read lead paint, it will tell us if there are any positive lead paint readings in the home. There were multiple rooms and first home, you know, sunroom, there was outside of the home, there was XRF readings showing the front porch, the exterior windows and there was a shed on the property. All these were positive readings by our XRF. There were no soil samples that exceeded 400, but we did have a couple samples that were 290 parts per million, and 370 parts per million. And since lead is cumulative, if children are out there playing in the soil and they keep getting contact with that soil, putting things in their mouth, you know, they dig in the soil, that can increase their levels as well. Next slide.

We have some dust wipe samples on the window sills in the child's bedroom that came out 1400 micrograms per

square foot, so many times over our dust limit. There was a pocket door; now this is not something that is unusual. Pocket doors go in and out of the wall, they are great dust collectors. Parents like to use them as like a baby gate to block off rooms. So it's just the right height for these little ledges that are on these pocket doors for the children to run their hands. So I did a sample of that, it came back 73, showed lead dust was present. And then there was a desk just sitting in a hallway and it came back at 231 micrograms. The first water -- or first draw water sample was taken, and it came back at 10.8 parts per billion. Now, this is not over the fir -- the -- the current federal action level of 15 parts per billion, but it was an elevated level, so it kind of, you know, gave me a little notice that there was something there. But like I said, since there was -- it's not over the action level, really no other action was taken on this home. Next slide.

So I just dive -- you know, we had 34 positive readings on this house for our XRF, these were dust wipe samples, our soil samples and our water, just a little diagram table of those. Next slide.

So Home 2 was referred to our program in December of 2020 and the assessment was completed in January. This home was also built about 1920. Once again, we had

positive XRF readings in multiple rooms inside the house; including the outside of the house, we had the front porch, we had an exterior of a separated garage. Once again, we had no soil samples over 400, but we did have one it's 240, you know, not exceptionally high, but once again, the child's out there playing, repeated tests -- or putting things in their mouth, that soil could raise their levels. Dust wipe samples, no dust in this home. Next slide.

So our cold water first draw sample in this one, kitchen sink, we get the notification that this test results came back 285.2 parts per billion, extremely high. Our laboratory actually sent us a special note on this one. We actually contacted the homeowner and went back to this particular house and took additional samples, as you see, in the kitchen sink, downstairs bathroom sink and upstairs bathroom sink. Kitchen sink, we had seven parts per billion, four parts per billion on the bathroom sink up -- downstairs, but the upstairs bathroom sink we still found elevated levels of 23.9. These were all first draw samples. However, when I discussed this with the homeowner, we were going to do some additional testing on the site, the homeowner just didn't want any further testing on the site. Actually for this particular home the homeowner actually moved soon afterwards. Next slide.

So once again, a table of our findings. We had 21 positive XRF readings. No positive samples on our dust wipes. We did two soil samples but the highest was only 240 parts per million, well below the action level, and there's our soils, or excuse me, our water samples. That 285 was a very, you know, concerning number for us. Next slide.

So then we did a third home. Third home was referred to us in March, and we completed it in April. Notice once again, home was built in 1920. It's kind of a reoccurring issue here. A lot of these homes in Clarksburg are built around this time period. I just recently did a house, actually yesterday in Clarksburg, that was built in 1910. So we're getting a lot of these homes that are very old homes that are painted with lead paint. We're getting high readings on our XRF at times. Near major roadways so we're getting some soil samples that do come back positive on occasion. But for this third home, we did have a few XRF readings, not very many. There were, once again, we had no definitive positive dust wipe samples, but I'm going to go over a few of those, and no positive soil samples. We had one paint chip sample that was 6000 parts per million, which was a positive reading. However, this particular home, we had a possible contamination of the father bringing home some contaminants. The father in

this case worked in construction industry. He worked on old homes. So we did some kind of, you know, unusual samples with his clothing. We did dust wipe sample that was taken from his work boots, it came back 35.4. With this particular, you know, work boots he did bring them in the house, you could have dropped them on to the floor, so there could have been contaminants brought home. Work pants, just took a '70s work pants, did a dust wipe sample on his work pants, came back 144. Once again, you know, if he comes home, a child runs up to him, grabs those pants just that right level, we could get some poisoning of the child through that. Water results on this one, a first draw sample was 20.3. So of course we were over our 15 parts per billion limit on this house. Next slide.

So in May 2021, our office, Childhood Lead Poisoning Program, notified our Environmental Engineering Division. Both of us -- both work under the Office of Environmental Health Services so it would really just be walking across the room and having a chat with our engineering division. That two homes in Clarksburg are found to have lead in their public drinking water above EPA's action level and the third had an elevated. We actually went back to the third home and did an upstairs bathroom cold sink. We did a first draw on that and the sample results, of course, were 15.5 parts per billion, then we did a time test on

the kitchen cold water sink. We did an initial draw, then we did after 30 seconds, 60 seconds, 90 seconds of a flush. As you can see the test results, we had a 12.4 for initial, went up to 55.1 after 30 seconds, came back down to 11.5 and then we have a 6.9 after 90 seconds. Next slide.

Once again just the table of everything so we could see how our test results came out on our dust wipes. We did have a stairs that we did on this one, it came back 9.54 just below the level of ten. I did a sample of mini-blinds in the house, mini-blinds are great for collecting dust. A lot of people have issues trying to clean those so we did something with those. It came back 9.28 so there's lead but -- present but, you know, it was a low level. Of course the soils, I did four soil samples at the home, had a level 180 was our highest but we did have one paint chip in the home that was over 6000. Next slide, please.

Here's a table of our water results, as you can see the first test was over the guidelines. When we went back and did the resamples, we did have elevated levels on the resamples. Next slide.

So we just received these test results from the Clarksburg Water Board. So the Clarksburg Water Board is the public water source for Clarksburg. They collected

samples at the meter pits, so this is before the property. We had a question of whether or not these water samples that we were getting was from the lead pipes on the property side or the lead pipes that were on the Clarksburg Water Board side. They collected these test results at the three homes. Test results came back 21 parts per billion, 30 parts per billion and 8940 parts per billion. Of course, all those are above the EPA action levels, this is -- was on Clarksburg Water's side. Once we got these test results and Clarksburg got these test results they understood that they -- there was an issue on their side because Clarksburg Water Board most recent line inventory that was submitted in 2019 indicated there was no presence of lead lines in their systems. So for years they've been saying, we have no lead lines within our system, which obviously that was not the case when they went to test their -- their water samples. Those lead lines were replaced at those three homes after these water samples were taken. And now we have actually a map within the Environmental Engineering Division that does show that there are multiple lead lines within Clarksburg. Next slide, please.

So the OEHS test results, along with the Clarksburg Water test results, they were emailed to our engineering division. Our office pushed water systems, notified

customers, the water system felt that this was not necessarily -- because they were really not out of compliance with the EPA's Lead and Copper Rule at this time. They had some elevated levels, but the percentages on test results were not over the Lead and Copper Rule. However, on July 2nd the Bureau for Public Health, which is who we all work for here, Office of Environmental Health Services issued an administrative order, and that is EE-21-12 to the Clarksburg Water Board. Next slide.

This order then required the Clarksburg Water Board to find alternate sources of drinking water and to use point of use filters that were known for lead lines that exist. So the Clarksburg Water did provide water to houses within Clarksburg. They also provided water filters, both water filters attached to the faucet and water pitchers. I know I did a house recently after this happened and the water filter would not fit on their faucet. They have a different style faucet. They would either had to replace the faucet or use a water filter -- water pitcher and they ended up using water pitchers. This order also required the Clarksburg Water Board to submit a corrective action plan to the Office of Environmental Health Services Director. The order for the -- further required that Clarksburg Water Board conduct additional water testing in the area which has been

happening over the past year, conduct lead service line replacements which are -- is ongoing, you know, due to money. Of course we hope with the new action with the federal government that this will start taking place with a little bit more rapid fashion. And then to conduct lead public education, which is ongoing as well. My office is part of the lead education, we do have the Office of Maternal, Child, and Family Health also does lead education in the area, the local health department is doing education in the area, and Clarksburg Water Board is required to do education in the area. The order is still in effect and the actions are ongoing. Next slide.

At this point I'm going to turn you over to Cori Ice with the Office of Maternal, Child, and Family Health.

MS. ICE: Good morning, everyone. My name is Cori Ice. I'm the Health Education Coordinator for the West Virginia Childhood Lead Poisoning Prevention Program. In July of 2021, the U.S. Environmental Protection Agency, or the EPA, Region Three Enforcement reached out to the Agency for Toxic Substances and Disease Registry, the ATSDR, also Region Three, to discuss options to support further assessment of the exposures to lead in the Clarksburg community, including increasing the childhood blood lead testing. The ATSDR began coordinating with the National Center for Environmental Health's Lead Poisoning

Prevention and Surveillance Branch. The SCA began facilitating discussions with the West Virginia Department of Health and Human Resources, Bureau of Public Health, Office of Maternal, Child, and Family Health, Childhood Lead Poisoning and Prevention Program. Next slide, please.

A strategic planning communication team was established and continues to conduct regularly scheduled meetings to coordinate federal, state and local efforts and provide support towards this effort. Members include our office, the West Virginia DHHR, your public health, Office of Maternal, Child and Family Health, Childhood Lead Poisoning Prevention Program, as well as our Office of Environmental Health Services from which Paul is from. West Virginia DHHR Office of Communications. Our DHHR West Virginia Women, Infants, and Children Office of Nutrition Services, the Bureau of Public Health Commissioner's Office, the Harrison-Clarksburg Health Department, the Center for Disease Control and Prevention, or CDC, the ATSDR, the EPA and as well as HUD Region Three. Next slide, please.

Incompletes. Blood lead reporting from healthcare providers was one of our challenges, as well as low levels of testing within the Medicaid population. We have had our -- our legislative rule changed that requires

mandatory testing for all children, regardless of insurance, at ages 12 and 24 months, as well as before six, if not previously tested. We also have had delays in data reporting due to our data system uploads and data cleaning issues with the health program, low concern level or awareness of lead risk to children and the importance of the blood lead level testing, lack of resources for community members to access residential lead mitigation and or remediation. Next slide, please.

This is just a slide of our screening rates from 2016 to 2021. It looks to be that it's just fluctuating between that 18.5 percent and 26 percent. Next slide, please.

This slide is a breakdown of the number of tests on children less than 72 months in both Harrison County and the city of Clarksburg, alone. The first two columns are for a number of tests in Harrison County. The total number of tests means that all tests were counted for an individual child and some children, you know, had two to three tests for that time period. The unique children tested in Harrison County is counted as one test per child ID so each child is counted as one in those number of tests. The columns are broken up into two time periods, counting the number of tests for all of 2021 or from July 1st to December 31st of 2021. The reason we did this

was to determine if the rates of testing had increased for the second part of the year, when the elevated blood lead levels were discovered. The blood lead levels themselves are divided up into two ranges. The 3.5 micrograms per deciliter, you know, the current level of concern, as well, and above. Then the second was the 5.0 micrograms per deciliter and above, which was the previous reference level. The same data was analyzed for the city of Clarksburg, alone. Next slide, please.

The ATSDR and EPA have played an integral role toward creating awareness to the Clarksburg community concerning the importance of lead level testing and flushing of the water lines. Infographics were created and disseminated to over 4,500 families. The Clarksburg-Harrison County Health Department and our West Virginia Childhood Lead Poisoning Prevention Program coordinated with the Harrison County School System and Unicare to provide several lead testing events. The West Virginia Childhood Lead Poisoning Prevention Program participated in several outreach events to provide education and conducted a focus group at a local church in the Clarksburg community. Next slide.

This slide shows the different testing events that we had done in Clarksburg specifically. One done at the Harrison-Clarksburg Health Department. There were a total

of 16 individuals tested, one of which was a teenager. The other -- well it should be 15 were adults, there were no positives for that particular testing event. North View Elementary School had a total of 35 tested. Of those, 19 were adults, three were teenagers, seven, excuse me, nine were less than 12 years and then our target audience of less than six years, there were four individuals. We actually had a total of nine positives for North View.

Nutter Fort Elementary School, there were a total of 14 tested with zero positive results. Adamston Elementary there's a total of 12 tested. Again, there were zero positive results. We had a Repack the Backpack at the Meadowbrook Mall in Bridgeport with a very nice number of 44 tested. Of that 44, 12 were adults, five were teenagers, 14 were less than 12, and we had 13 kiddos in our target audience of less than six. Of those we had six positive results and those were three families of two children. The Clarksburg-Harrison County Health Department is doing ongoing capillary testing by appointment or walk in. Next slide, please.

Addressing challenges of low concern and low lead -- low screening rates through collaborative learning. Michigan Childhood Lead Poisoning Prevention Program shared their experiences through the Flint Registry water

crisis and offered insights on the best practices and resources, which will include coordinating with state Medicaid managed care organizations to incentivize testing, creating a state response plan, building trust within the community, engaging the faith-based communities and finding strong community advocates. Next slide, please.

So addressing challenges of low screening rates through collaborative learning. The Wisconsin Childhood Lead Poisoning Prevention Program also shared the sample provider report card packet they send to providers and discussed how they were able to obtain the information through their data sharing agreement with the Medicaid program in their state, and future meetings to be -- are going to be scheduled to discuss -- discuss how they obtain funding to provide testing at WIC offices. Next slide.

Addressing challenges of low screening rates, April 4th of '22, the Childhood Lead Screening Rule 64-42, again, was amended to update the blood lead reference value and require a universal testing for all children, again that 12 to 24 months, as well as before six, if not previously tested. Collaborate with the Bureau of Medical Services to collect data and establish a process for creating the provider report card, as well as

collaborating with the Health Check program to perform an audit of Medicaid providers with additional academic detailing. Next slide, please.

Provider Education Opportunities. Villanova's University Mid-Atlantic Center for Children's Health and Environment, or MACCHE, one of the ten Pediatric Environmental Health Specialty Units, or PEHSU, in the country, funded by the ATSDR and in part by the EPA, provides education to families and providers about children and environmental hazards. Using the ECHO model, MACCHE is creating podcasts to educate nurses and providers in West Virginia about the harms of lead exposure. And coordination in progress to hold an education session at West Virginia University United Hospital Center. Next slide, please.

We have several community partnerships, Prevention Solutions, which is the former Harrison County Family Resource Network which disseminated fliers to partners within Harrison County. Legal Aid created a flyer and disseminated to families within Clarksburg. A partnership of American African churches provided a list of African American churches and we were able to hold a focus group at the Immaculate Conception Catholic Church. The Dunbar School Foundation STOP Program works with the African American community to increase vaccinations for children

and COVID-19 vaccines. They also work with Pastoral Leadership of West Virginia to help gain trust of the community. There is a history of lack of trust within the -- with the Clarksburg Water Board and upset -- they're upset about the 30,000 new lines that have been brought into the area. Next slide.

The West Virginia Childhood Lead Poisoning Prevention Program and the Office of Environmental Health Services in HUD Region Three are working for finding an agency that has a capacity to apply for the Healthy Homes and Lead Hazard Control Grant. The West Virginia Childhood Lead Poisoning Prevention Program and OEHS have not been able to apply for that grant. At present, the Childhood Lead Poisoning Prevention Program does not have the capacity to maintain the grant, and OEHS cannot apply due to conflicts of interest, since they actually licensed the contractors that would bid for the contracts. Next slide, please.

Any questions?

MR. AMMON: I appreciate that presentation, and this is Matt. I was going to ask you about remediation efforts related to lead paint and now I kind of see the answer that you -- you didn't -- do that which is a shame, you know, I -- I, you know, I'm thinking about other sources of funding even beyond ours. Even -- even if it's not a lead hazard control grant which I still encourage you to

apply is, you know, our community development block grant money, you know, you could use for lead remediation, you know, things of that nature, other sources of funding in the state, so you can both attack the issues related to water and in the home environment related to paint, you know, soil, dust, you know, things of that nature. Is there --

MR. ICE: There is ongoing talks currently in the works with West -- with the West Virginia Department of Health and Human Resources and one of our other agencies within the state for possibly for them to go after the grant and that way they're -- they're really good at doing grant work. They've done other weatherization grants and such and for us to, since we do the licensing, and we do the inspections, for us to then do all that part of the education and get the contractors to apply for it.

MR. AMMON: You understand we -- we can help you out. You can just reach out to me and we'll work with you, but let me turn it over to Paul, who has a question.

DR. ALLWOOD: Thank you, Matt. And thank you, Paul and Cori, for a very informative, very, very informative presentation. I really appreciate all of the work and the leadership that -- that you and your departments have -- have shown and also, you know, very impressed by the, you know, the very broad collaboration that -- that you were

able to organize in response to the situation. Cori, one of your slides on the schools' testing, it seemed like one school kind of stood out, you know, for having, you know, blood lead levels in children. Is there any -- anything that we know at this point that might explain, you know, that -- that kind of different result from the other schools?

MS. ICE: Other than -- Paul may be able to better answer as far as Nutter Fort, I believe, is the school in which you're referring that have the -- let me double check.

DR. ALLWOOD: Yeah. Maybe if you put your slide back up that showed the --

MS. ICE: You can. It was, well, Number 22 on our slide, yes, there we go. So it was actually North View Elementary --

DR. ALLWOOD: Correct.

MS. ICE: -- that had a lot of the elevated.

MR. ICE: There's not -- the entire area of Clarksburg is all older schools and older communities; it may have just been that this particular school had the right amount of children that tested it. There's no correlation that we could come up with on why this particular school had more positives than the other schools. The one in Nutter Fort, maybe it's a little

newer area of the county/city there. North View is a little older, but I know Adamston Elementary School is also in an older neighborhood, as well. But we can't understand -- we don't know why it was we got the six and two there.

DR. ALLWOOD: Okay. Thank you.

MR. AMMON: All right. Thank you for that, Paul. Let's see before we are scheduled to take our break in a couple minutes, eight minutes, is there any other follow-up comments, questions? I know it's good to see that you all are working with the old Michigan contingent, based on their experience and offering advice, definitely help at the stage where you are and where they are, obviously, bridging the gap, I think, is -- is key here and making sure that you guys can learn from what other people have gone through already and we can offer that to you. Let's see, is there any other, again, questions or comments from anyone?

DR. ALLWOOD: So Matt, I can just, you know, offer another comment and -- and maybe Paul -- Paul Ice might and Cori. I know Cori liked my comment -- comment on it, but I -- I think it's my understanding that there was, you know, some -- some level of -- of engagement with -- with the state of Michigan and -- and perhaps even more specifically with the Flint Registry folks. Is that -- is

that the case, Paul?

MS. ICE: Actually, I am not completely sure about the status of those talks. That's something I can certainly find out and let you know --

DR. ALLWOOD: Okay.

MS. ICE: -- how it's going.

DR. ALLWOOD: Yeah. And I think it's just fitting that, you know, that we -- we have both, you know, communities sharing today at the LEPAC, and, you know, I hope that, you know, I'm -- out of this -- this, you know, joint effort, there will be, you know, good opportunities to engage in, you know, to learn from one another and to share resources and ideas.

MS. ICE: Absolutely, their -- their presentation was phenomenal so it was nice to see that and see exactly where they are in the process and it’s very encouraging.

DR. ALLWOOD: Thank you.

MS. ICE: Thanks.

MR. AMMON: Question from Jill.

DR. RYER-POWDER: Yeah. Just -- just a quick question. So -- so you have the data from the three homes, I was wondering if anyone ever looked at the cumulative exposure for each of the homes because, you know, you have the soil data, you have the water data, you have the dust data and it doesn't -- it -- it wouldn't be

really difficult to try and look at, like, what -- just to -- just to see what that cumulative exposure -- what the expected blood lead level of anybody living there would be?

MR. ICE: That has not been done. Unfortunately, I am the only one who does enviro-lead assessments for the state and my -- this -- the entire state of West Virginia is my jurisdiction. Now, I honestly do not have the time to do it and we currently are down an epi, so if that would be what something that they would want to do, we just don't have the resources to pull that kind of information yet.

MR. AMMON: All right. Thanks. Is there -- just a follow-up for me, is there additional testing that has been done in terms of additional sampling after the initial work that you had done in the three homes to see -- doing any type of, you know, filtering in this -- in the home or anything like that has made a difference?

MR. ICE: Not currently because, like I said, the -- the water test -- that the one of the homes, it was, I believe, number two, that gentleman -- they actually moved. And the house -- when all this first started, the house was vacant so no one could get in the home. The other two homes, we do in contact with when we do follow-ups for children with elevated levels. So when we

do a follow-up down the road and ask how the child's doing, they're -- they'll tell us they're using the water filters. The water filters right now is about the only way to take the lead out because the lead lines are still there, they haven't got to remove them yet. So that -- that case the -- we're just looking at the child's levels have dropped. So we're not going back and doing follow-up tests. There are tests ongoing within the county itself or within the city itself done by the water board, by our Public Health Sanitary and Fire Engineer, so there are other water tests being going on constantly, but not specifically at those houses yet. If those parents would call me up and say hey, would you come test my water again, I would be more than happy to go up, but we just haven't got a request for that.

MR. AMMON: Yeah. Understood. You know, it's been our experience in dealing with public housing residents that -- that providing additional filters on a regular basis, and you know, showing them how to put them in properly, you know, has -- has and can make a difference, but it is, you know, due diligence just to make sure that -- that they have them, that they're readily available and that they're actually being used. So and it does -- it does take, you know, on your end too to keep going out and making sure that it's available, and you can -- you can

purchase it for them and then you're making sure that it's installed properly.

MR. ICE: Right. And so the purchasing of the filters is done by the Clarksburg Water Board so they're the ones going -- the actual purchasing of these filters for the homes.

MR. AMMON: Yeah. Good. And we turn it back, Paul, you have additional follow-up?

DR. ALLWOOD: Yes. Just a quick follow-up on something that you presented, Paul Ice. The one home that had a take-home lead exposure situation I, you know, I found it really interesting in these, you know, homes built in 1920. And this worker, the -- there was a person living in that home that was in the construction industry. Has there been any opportunities to engage with construction companies or maybe even hardware businesses in the area to, you know, raise awareness about the potential for lead exposure in the community?

MR. ICE: So we are constantly doing outreach to different contractors. We -- because of Clarksburg specific I've sent out letters to all the contractors within the county that are licensed and actually went so far as do some of the touching counties, you know, the neighboring counties with them. So they've all gotten letters. They've all gotten letters from me in the past.

I do this across the state. I'll send letters to contractors dealing with lead issues. We do work certain events, outreach events, we had a -- it's called a construction expo so I -- we did have an informational booth there, talking to construction companies. So it is ongoing. Sometimes these companies are small, you know, you try to get ahold of the company, you know, of five people; some of them are large, so it is -- it's an ongoing thing for us to constantly talk to these businesses and contractors.

DR. ALLWOOD: Thank you.

MR. AMMON: I -- I -- this is Matt. And -- and we're up on -- almost up on a break, I would say keep following up with them because when you -- when you do eventually get your lead grant, you want to make sure that you have the right capacity to be able to do the work in the homes so --

MR. ICE: Yes. With -- if we eventually get the lead grant, so we actually, my office, actually license the contractors to do lead work. If it's an RRP issue, of course, we do not license them. We're not an RRP state, but we will make sure that people within the area and local contractors are up on their RRP, as well. That is one thing we also stress is RRP, if you're -- if you're not doing an abatement, if you're working in these homes,

RRP training.

MR. AMMON: Yeah. Yeah. That's good, that's good. Well, I appreciate your presentation, good luck and again we are here to help, and with that we are up on a break, and we will see everyone back at 11:15.

(Break, 11:00 till 11:15 a.m.)

MR. AMMON: Hello everyone, welcome back. I think it goes without saying that we all get pretty excited when we see very positive things regarding funding for our work come out of Congress and this -- this is a big one, you know, this is related to the bipartisan infrastructure law for lead pipe replacement that will go to states and tribes and territories and several billion dollars for that effort. And so, that is a very, very good thing and we're going to hear now from EPA regarding that work.

CURRENT INFRASTRUCTURE INITIATIVES RELATED TO LEAD

DR. MCLAIN: Hi everyone. I'm Jennifer Mclain. I'm the Director of the Office of Ground Water and Drinking Water at EPA. And I am going to talk to you as Matt just introduced about some of the infrastructure work we have related to -- to lead in -- in drinking water. I wanted to start out since we're from a diverse set of backgrounds just a little bit about what EPA does under the Safe Drinking Water Act. We are responsible for public health protection through safe drinking water programs. Those

include setting national drinking water standards. We partner with states, many of whom have responsibilities called of -- privacy and privacy and the regulated community to ensure the regulatory compliance so the states have that oversight responsibility and EPA oversees -- oversees that state responsibility.

And then we have funding investments and drinking water infrastructure such as I'll be talking about today related to lead, specifically; the biggest programs are the drinking water state revolving fund program. We also have a number of grant programs and we also have -- we also work across the opposite water to implement the Water Infrastructure for Improvements Act, which is the WIFIA, which is another infrastructure financing program. And we have responsibilities that are not related to this topic of lead today, such as resiliency of our nation's water infrastructure and underground injection control.

There are 152,000 U.S. public water systems; that's a lot of systems across the U.S. And we have over 50 -- about 50,000 of those are community water systems. Those are the ones you typically think of when you think about a water system where you have a town, they deliver water to the town, that's a community water system. But a lot of these are very small. About -- about 27,000 of them serve fewer than 500 people, and some of them can serve as few

as 25 people. So this might even -- might be something like a -- a mobile home park or other small community that receives drinking water from the -- from the system.

Okay. So the Bipartisan Infrastructure Law that Matt was talking about provided EPA with over $25 billion for safe drinking water, which is really exciting. Fifteen billion of that is for lead service line replacement under the Drinking Water State Revolving Fund Program. We also have received another $11.7 billion under the Drinking Water State Revolving Fund for any projects that are eligible for that program which include lead reduction projects, including lead service line replacement and other improvements to infrastructure to reduce lead in drinking water. There are a couple other pots of money associated with emerging contaminants and drinking water that we're also implementing under the Bipartisan Infrastructure Law.

So just a little bit about what the State Revolving Fund Program is in case you're not familiar with it. The State Revolving Fund Program is a federal, state partnership that is designed to create in each state a perpetual source of financing for drinking water and then there's also waste -- a similar wastewater program for the infrastructure for drinking water and wastewater across the country.

The mission of this program is really to reduce the costs related to these critical public health and environmental infrastructure. And it works to combine both federal and state funds to provide this low cost financing to -- to these utilities. It's implemented and operated through the state, so what EPA -- with this infrastructure money that we receive from Congress, we provide grants under specific terms to the states and we oversee the implementation, but the states are the ones implementing the programs and they have flexibility in terms of decision making and also have the funds for doing things like providing assistance to utilities, as they implement the program.

There are special financing terms for disadvantaged communities to address equity and affordability. And this is something I'll be talking about a little bit more as, as EPA's looks to our goals in implementing the Bipartisan Infrastructure Law. So our key priorities in that implementation are first of all to provide flexibility to meet local water needs. So this is, as I just mentioned, a key principle under this, the revolving fund program to provide states and borrowers the flexibility to address local water challenges. We also want to make sure that we are increasing investment in underserved communities. An exciting thing about the Bipartisan Infrastructure Law is

that in those general supplemental funds that I was mentioning we are -- the Congress directed 49 percent of those funds to be used for disadvantaged communities, and this, of course, is something that can make a real difference in those communities that need it most, and we're working with states to make sure that we -- this is implemented to -- to its fullest extent.

We also want to make sure that these funds are used to make rapid progress on lead service line replacement to really maximize that $15 billion that's dedicated to lead service line removal. We want to make sure that that is used as well as those other funds to make significant progress towards President Biden's goal of removal of 100 percent of lead service lines across the nation. We're also looking to address those emerging contaminants that I mentioned, such as per- and polyfluoroalkyl substances and other emerging contaminants. And we're also looking to make sure that we are prioritizing the resilience of our infrastructure.

So a little bit more about the -- the drinking water funds that we're -- that we're receiving under the State Revolving Fund. As I mentioned we have 11.7 dollar -- $11 billion under the general supplemental fund. So anything that's eligible as the Drinking Water State Revolving Fund Project is eligible for potential project in this -- under

this provision, and so that includes projects such as projects to support corrosion control, lead service line removal, inventory development for lead service lines. As I said 49 percent of this grant has to be provided as what's called an additional subsidy to the community. That means that they are getting something, like, they are getting principal forgiveness or they're getting a grant and the communities that receive those -- that -- that subsidy, are only communities that meet the state's disadvantaged community criteria. So the state has to first lay out what is a disadvantaged community, according to specific criteria under the law, and they must -- they must use 49 percent of this grant has to go as subsidies to those communities. So this is a really exciting feature about the bill that so much of the funding is focused on those communities that need it most.

For the drinking -- for the lead service line replacement supplemental, one -- one exciting thing about this bucket of money, 15 billions of dollars, is that there's no state match required. Under the general, there are monies that the state has to contribute in order to receive the funds, but for the drinking water, State Revolving Fund lead service line replacement, there's no state match required and funds are eligible for replacing lead service lines and any of th7e associated activities

that are directly connected with that. So a community going out and understanding, like, where are the lead service lines, how do we plan the removal of the lead service lines, like the design of the project, the prioritization of certain component -- certain parts of their community for removal first, all of those types -- all of those components of a project are eligible for the use of those funds and that's exactly what these communities need who need to remove their lead service lines.

So 49 percent of this grant goes to those disadvantaged communities also. So the lead service line inventories is one thing that we think will happen often in many states and many communities will be the first thing that that community is looking to use the monies for. There are some states that have made significant progress on developing inventories, but in many states across the country communities do not have an inventory of their lead service lines. And this is a project that is eligible under these funds and it's also eligible for -- for support the -- the state can also support communities in doing those inventories and the federal government can too, and that -- and that's what we plan to do.

One significant factor that we want to make sure that every project -- every project includes the replacement of

a lead service line for the entire lead service line. So not just a portion, unless there's only a portion left in the ground at this point. There will be no projects that are funded under the bill that are only a partial lead service line, it must be the full lead service line. And EPA is really encouraging states to fund the private portion of that -- of that lead service line replacement at no additional cost to the homeowners to address the real affordability concerns that exist with lead service line replacement.

We plan to support these funds with significant technical assistance to both states and communities to really reach those disadvantaged communities, and one of the programs for technical assistance that EPA's putting together is focused on the lead service line removal. So assisting communities with the identification, the development of the inventory and the replacement from the beginning of the project all the way to the end. We want to make sure that the communities that need it most, have the assistance in order to put the project together to apply for the State Revolving Funds from their -- within their state program and to be successful in that and to implement the -- implement a funded project.

I wanted to mention a couple other grant programs that are not funded under the bill, but that are related

to the work -- are related to the lead infrastructure work that EPA has received separate appropriations from Congress on. So these are under the Water Infrastructure Improvements for the Nation Act. There are three large grant programs that EPA runs, all of which can be used to assist in lead reduction infrastructure projects. One of those is the Small Underserved and Disadvantaged Community Grant Program that's -- that is -- those are grants that are to assist communities that lack adequate drinking water or that have issues with Safe Drinking Water Act standards and not -- not complying with them.

These -- these are grants that go to disadvantaged communities, again, based on those state -- that state's definitions and they can include projects such as the corrosion control and lead service line replacement. We also have a grant that is specific to reducing lead, it's called the Reduction in Lead via Drinking Water Exposure Grant. And that's a competitive grant where EPA issues an RFA and the focus of that grant is to reduce lead in drinking water in disadvantaged communities and also in schools and child care so we -- communities can do things such as replacing drinking water fountains or fixtures at schools and childcares that have lead components, as well as replacing lead service lines in those communities.

And then we have a program for lead testings for

schools and childcare facilities where these are non-competitive grants that are issued to states and territories and tribal consortia to assist with drinking water lead testing. A couple of other initiatives, I thought I would mention, since they are related to the topic here is what EPA is doing with respect to our standards for lead.

So in January of 2021, EPA promulgated the Lead and Copper Rule revisions and in December of 2021, we announced the conclusion of the review that we have done for that rule and we announced that we'll be developing a new proposed rulemaking for Lead and Copper Rule improvements prior to the compliance deadline for the Lead and Copper Rule revisions, which is in October of 2024. We are looking to strengthen key elements of the rule with a focus on equitably protecting public health so the -- the elements that were focused on are replacing all lead service lines as quickly as is feasible, strengthening tap sampling requirements and exploring options to reduce the complexity and -- associated with the action level and trigger level, which are part of the rule.

So that first item, the replacement of all lead service lines as quickly as feasible. Clearly, you can see the match between the regulatory initiative that we're working on and the infrastructure funds that we have on

hand to work with the states. So we're very excited about having the funds available to support this work that we're going to be working on in the -- in the rule development.

We also want to make sure that when we're doing this rulemaking that we're approaching prioritizing historically underserved communities and exploring how to replace lead service lines to prioritize these -- these communities and this work again is being done, both under the work that we're doing for the funding program, as well as to support the regulatory effort.

We are looking to publish guidance on lead service line inventories in the very near future. This will include best practices case studies and templates and will support water systems as they look to develop a -- an initial lead service line -- lead service line inventory for their community, which is required under the Lead and Copper Rule revisions and that compliance date is October of 2024. They will be able, if their project is successfully funded by their state, they will -- could be using Drinking Water State Revolving Funds to complete that inventory and, as I mentioned, EPA and the states are working to provide assistance to communities who are -- want to perform -- preparing an inventory, both for the purposes of the funding and as well as for the compliance with the regulation.

We really think that these -- we're focused so much on the inventories because of course identifying where the lead service lines are, are integral to lead reduction efforts. And it really provides that critical information of the locations of where someone could be exposed to high drinking water lead exposure. So it will help both in identifying sample locations, as well as planning for those replacements and receiving and getting funds to support projects supported by the Bipartisan Infrastructure Law.

So there are a number of other actions that I'm not going to get into too much here that, but that are related to our work to reduce lead and drinking water. So one of those that is our School and Childcare Lead in Drinking Water Program I mentioned the -- the funding that we have to support lead testing in schools and also lead remediation in school and we also partner with CDC and other partners to -- to remediate and -- and under -- better understand and support schools and childcare facilities as they look to reduce lead exposure in their -- in their communities. And we also provide technical assistance to communities that have drinking -- high drinking water levels so that they can understand to that -- to operate their water systems and to understand where their lead service lines are and we're always working to

improve our risk communication tools associated with lead exposure in drinking water. We do a lot of that in collaboration with the CDC. And lastly, I'll just point out about one -- one component of that is, as I mentioned earlier, associated with the funding is to always be encouraging and doing everything we can to make communities understand how important it is to replace the full lead service line when they're doing these lead service line removal projects and to not leave a partial lead service line connected to the home so that the -- those -- those -- those folks in the home are as protected as possible from lead in drinking water.

So that's all I have for you today. It was fun and say thank you to CDC for inviting me here as I went through all of those programs that we're working on. I do want to note that we work really closely with CDC and we appreciate their partnership in all aspects of the work we do associated with lead in drinking water, and we are hoping in that partnership to make this significant progress in lead service line removal across the country and in reducing lead in drinking water. Thank you very much for inviting me to your meeting today.

MR. AMMON: Thanks, Jennifer. We all echo that sentiment that this is a big work, great work, you know, we're really expecting great outcomes and making huge

difference in communities related to lead in water. Let -- let me first open it up just to see if anybody has initial questions. It won't be any surprise, I have a couple, but I will wait -- I will wait to see if anybody has, excuse me, any additional initial thoughts or comments. So I'm not seeing any, let me -- let me ask you kind of a two-parter, if you will. So the 49 percent to disadvantaged communities, you know, I think -- I think that's a big you know big plus, you know, to have that as a requirement. And, you know, one of the things that I'm hoping that you all will encourage and we can kind of figure out together how this dynamic works on is the inventory development.

So obviously you're looking at the inventory development to figure out where to go, right? But there's one thing that I'm hoping is added to that and that is prioritization for not only communities, but all those street level properties that either are public housing or -- or project-based Section 8, right? Those two are naturally fit within your prioritization I'm hoping, that giving guidance to states to say as you develop your inventories you'd be mindful that we already have a population that is perfectly, you know, perfectly within the frame work of this work, related to disadvantaged communities and -- and population, you know, whether it's

a federal poverty level or -- or area median income, sorry, using our, again, I can tell you exactly where all of our public housing agencies are, where our properties are, where our Section 8 multifamily properties are. And I'm -- I'm hoping that is included as part of this inventory development prioritization.

DR. MCLAIN: Yeah. Thanks, Matt, for the -- for the question. First of all, just definitely agree on how exciting it is to have the 49 percent for disadvantaged communities. I didn't get into like the nuts and bolts of exactly how the SRF program works in the level of detail of the disadvantaged communities, but I'll just add a little bit more on that with respect to the question that you asked. So the disadvantaged communities, the state does define disadvantaged communities and EPA in our implementation memo to the states a couple months ago, provided guidance to the states on how they can look at their disadvantaged communities definition to really make sure that those underserved communities are receiving these subsidies and one of the -- one of the points that we made in that guidance was exactly the point that you're making. Sometimes it's a portion of the community where that is the, you know, the, the underserved community -- the underserved community is within a larger community. And we provided some guidance on how they can look at the

criteria that are under the act of how they, you know, what -- that they use to define disadvantaged communities as well as looking at these sections within their communities that are underserved. Such as you -- as you mentioned that there -- there may be some places where there are Section 8 housing. So a state could -- could look at those kinds of -- that kind of information as they're examining their definition for disadvantaged communities. And we do know that there are a couple states that are currently really digging into their -- the way they define disadvantaged communities and looking to how they can improve that definition. And we're -- we're going to be continuing to support that, as well as providing guidance on best, you know, best practices for lead service line removal.

So both of those two things can go together and they don't necessarily -- they aren't -- they aren't mutually exclusive, but they can also -- you can also have a program that has projects that support lead service line removal with prioritization of those outside of that -- the definition of the disadvantaged communities. So they -- they can really be complementary to each other.

MR. AMMON: Good. I appreciate that. I'll deflect my second question. I'll turn it over to Paul, just making one follow-up that -- so we're here to work with

you and making sure that that information gets to the states in terms of the coordination of the actual addresses and it goes without saying that your administrator and my secretary are very interested in making sure that happens.

DR. MCLAIN: Absolutely, as we are.

DR. ALLWOOD: Thank you, Matt. And thank you so much, Dr. Mclain. It's, you know, very informative presentation. You know, in a former role, I -- I had some responsibilities for state drinking -- for statewide drinking water program and, you know, I could really resonate with your -- the point you made about, you know, vast majority of our public water systems being non-community systems, including those, you know, very small systems that serve small numbers of people.

And I just wonder as you're talking about the -- the Bipartisan Infrastructure Law and the funds that it has made available, are there any thoughts about how we might effectively, you know, reach some of those smaller, you know, drinking water systems and ensure that they are, you know, fully positioned to take advantage of -- of some of these funding opportunities?

DR. MCLAIN: So thank you, Paul, for that question. So there are a couple things that we're doing. First of all, you mentioned non-community water systems. So there

are some non-community water systems that are eligible for the drinking water funds and the -- and the grant funds, as well as some of the community water systems. So we're looking to support those really small systems in the technical assistance program that I mentioned. So both the states and -- and EPA have funds to help stand up these programs for providing technical assistance to communities that are looking to develop projects to submit to their SRF programs for -- for approval and -- and for funding.

There are a lot of communities that need this kind of support that have never tried to go through the process of applying for one of, you know, for finance -- financing from their state. So they really do need that -- that help and understanding. How does the program work and -- and -- and actually, like, putting together the project proposal and designing the project that they have. So we definitely see that as being one of the needs for the assistance program that I mentioned, and the gap we need to fill.

MR. AMMON: Thank you, Paul. And we have a question from Jamie.

MR. MACK: Actually if it's okay, I just wanted to add kind of the state perspective to what some of what Jennifer was saying, because the SRF program that she's

referring to here in Delaware is also part of my responsibility here at -- at public health. And just like Jennifer mentioned, we're working directly with some of our smaller utilities. Right now it's simple outreach trying to make them aware, but we are looking at how we can best support them, both through, you know, technical and design processes, as well as the simple financial completing grant paperwork, you know, just making sure that we remove every barrier that we can between them and the funding because they are some of the most vulnerable. So I just wanted to add the state perspective to -- to what Jennifer said as well and thank her for everything that EPA is doing.

DR. MCLAIN: Thank you, Jamie. I appreciate that work that you all are doing; that sounds great.

MR. AMMON: Yeah. And I would -- I would echo that, you know, in -- in listening to many states and localities around the country, a lot of them need help in terms of, well now what do I do, right? I mean, there's just so much out there that is direct assistance now, not necessarily just going to the states, but the other sources of funding like the American Rescue Plan where, you know, states really help -- need to help me with navigating all of the funding and how do I -- how do I access that? Well, what do I need to do? And so the fact

that you are thinking about that, and, you know, Jamie echoed that that this is something that is really critical to succeeding and what outcomes we're looking for, but -- but it all starts with, you know, this isn't a formula-based program where you automatically get it, you -- have to ask for it. So I think that's something for hard for -- hard to get the states who haven't done it before or even other localities to, you know, get the right capacity up to be able to do it. So Perri, you have a question?

DR. RUCKART: Yes. Thanks for your presentation, Jennifer. I have a question, I apologize if I missed this, but did you indicate when these funding opportunities were going to become available or have they already been published?

DR. MCLAIN: Yeah. Thanks, Perri, for the question. It does a little -- it depends -- it really depends on the state that you're -- at this point it kind of depends on the state that you're -- that the community is in. EPA has provided the states, as I mentioned, with -- with the implementation memos for this first year of funding. So the funding goes over five years and with for the first year of funding, states have the implementation memos and then what the states have to do is put together their what's called their -- their plan and their priorities for

the use of the funds and they submit that to EPA. And we review -- review the submission and then upon approval, provide the grant that -- the monies to support that plan. And then the state will be working with each one of the communities to put the loan agreement together so it really gets down to, first it -- to what the -- where the state is in the process and where then the -- each one of the communities is in the process, but our -- our desire is to, you know, we're working closely with the states and we all -- we all want to have the money go to those communities as quickly as -- as -- as it's feasible. So we're kind of right in -- right in the beginning of this process right now of -- of the money flow and I don't know if Jamie has anything to add to that, but...

MR. MACK: Yeah. I can just add that Delaware has already done what we call our bid solicitation, which is the first step for us to develop the intended use plan and the project party list that Jennifer mentioned. We got a massive amount of applications and funding requests compared to what we did previously so it's obvious the word is out. But, yeah, we're as a state already moving through the process that Jennifer is talking about, we have all of our applications at this point, we're preparing them to submit back to EPA for approval to continue the process. So I don't know that we have a

defined timeline yet, but we're hoping, you know, before the end of the year, to be able to start seeing some of the money flow out.

DR. RUCKART: Thanks. I have a follow-up question. Do you have suggested floor and ceiling limits so the states can get an idea of how many projects they should be funding or is that all up to the states?

DR. MCLAIN: Well, it depends on those -- the -- as Jamie was talking about, the -- the solicitation that they do and the projects they get -- they get in and then the state, like, ranks those with their -- with their priorities so it really goes upon the -- it's a very state-by-state and priority by part of -- priority and -- and on those projects that the communities submit. So there are -- there's no defined floor or ceiling or -- or guidance on that and it will be varied depending on the -- the state.

MR. MACK: Yeah. And I can just add that we've seen projects from, you know, 100,000 or in that range up to the -- I think our biggest ones right now are in the 50 to 75 million dollar range.

MR. AMMON: It's great to hear that, you know, all this isn't really, this is not theoretical. We have actually people in the process right now of doing this, and I think that's a good thing to see is that the

continuum of, you know, where we are now agency-wise in terms of plans and -- and things of that nature, but then actually having somebody implement it, I think it's great to hear that. And I have kind of a follow-up for probably the both of you. I know that the law requires full service line removal, right? So the main to street and then street to property and then the -- the funding on the infrastructure side is just from -- from the main to street, correct? Not from street to property and I'm -- and my question is regarding the street to property. And you had mentioned, I believe, some type of grants or other things, or loans to be able to help do that, and, you know, my -- my regular job thinking of the assisted property stock, right? And -- and knowing if -- if you have assistance on the property, would you be eligible to receive other grants and things of that nature given that we don't really have the capital reserves available to be able to take on that work on both the public housing side and the Section 8, project-based side.

DR. MCLAIN: So first I'll say I'm -- I'm not quite sure I followed your street to housing, housing to street. So let me -- let me start with sort of, like, the -- the basic and then you can let me know if I've answered your question. So I should have mentioned this earlier because I just kind of jumped into a discussion of full and

partial lead service lines which I know some of you are familiar with and some of you may not be. But a lead service line to a home is the -- the entire line that goes from the main, traditionally, you think what goes underneath the street all the way into your house that goes then -- then the water comes into your home -- your home's plumbing. So in that service line sometimes that service line is split up into one section that, basically, is owned by the utility that's often the section -- the section of the line that's between the main and the meter. And then there's often the second half is owned by the property owner so between the meter and the home is considered to be part of the house. So there have been some -- some locations where utilities have supported a, you know, from the utility project perspective, only the removal up to that water main and what we're saying is if you're going to be using funds from the State Revolving Fund, you must replace the entire lead service line at that project, because we know from studies that if you replace just part of that lead service line, you can really increase the exposure to the people in the home from lead by having that -- a disruption to the service line happen and then leave half of a lead service line in place that can be very dangerous for the people who are living there.

So we want to see is the whole line taken out and we don't want any projects happening where it's just part of the line taken out. So what we have -- are encouraging states to do is in that -- in that removal of the full lead service line is to, basically, to make sure that the whole thing's funded so that the home -- the -- the people living in the home, either the homeowner or the property owner or whatever the case may be, doesn't become part of the equation of how are we going to pay for that project? Now, that's guidance from -- from EPA that -- that will be states will decide how their programs are going to run. But I think that's the question you were asking about, Matt, sort of like that supporting about other part of the line. We really encourage that -- that whole line to be just supported through the funding of this bill so that homeowners don't and -- and -- and -- and renters and others living in -- living in locations that are served by lead service lines don't have to put any money forward, because that's -- that's a real barrier to having lead service lines removed in many places, especially in those underserved communities that we're prioritizing.

MR. AMMON: That's -- it's -- it's exactly what I wanted to hear and it's actually nuance. It's actually critical because, you know, I think, obviously, there would be apprehension for anybody having to fund the part

from their house to where the hookup is in the street. I'm also glad to hear that the assisted housing properties aren't excluded from that because typically we are; we're excluded from a lot of things in terms of funding. I think that -- that is great news. I think that needs to get out more. Now, I know Jamie you're probably flooded with so many requests that you're going to run out of money pretty quickly in terms of being oversubscribed for the funding that you'll be getting.

MR. MACK: You know, I think at this point what we're seeing is probably a higher number of requests for funding to support lead service line inventories than we are for direct replacements yet. The lead service line inventories, I believe it's October 2024 they need to be completed so that's where the focus is right now. In preparation for the lead service line replacements, we are having a lot of discussions about where we think that line ends for our purposes because, you know, definitely we want to go as far as we can, but once we start -- start talking about private property and homeowners and renters, you know, things get a little more complicated because we have access issues and things like that, not to mention, you know, restoring it to previous and, you know, it just gets to be a very complicated conversation which is why we're starting that now to make sure that we've got a good

plan in place for, you know, once the, the inventories start to be completed and we start to see more requests for money for direct lead service line replacement.

MR. AMMON: Good. Ruth Ann, you have a question?

MS. NORTON: Yeah, and just following on on Jamie's comment, is there a mechanism by which people can voluntarily have their house, their property, their plat kind of added to that inventory, or is it simply all public lines, at this point?

MR. MACK: I believe the requirement is public lines at this point, but based on housing age, you know, we can make some general assumptions about the housing stock and whether there's lead pipes. But I can say here in Delaware as the systems move through the lead service line inventories, the state and public health are working to increase the testing we have of private homes for lead. We're working on how we can offer that through our public health laboratory in my section here at public health, both for those on public water systems, as well as private wells because we think that's an important part of the piece of the puzzle as well.

MS. NORTON: Yeah. We've been looking at the Maryland legislature -- looking at the way in which we can provide that option for people to opt in to have their -- their lines, if they do their own -- do the replacement

from property line forward, right, into the inventory and I think it would be something worthwhile over time for us to know that. But just -- just to let you know that we're looking at how do you get that opt-in, right? Especially, on properties -- private property that may have childcare centers and daycare. So there's real certification there.

MR. AMMON: Great. Thank you. Paul, any additional comment? Question?

DR. ALLWOOD: Yeah. Thanks, Matt. You know, I'm just pleased to hear the discussion and -- and, you know, something that -- that Dr. Mclain mentioned, I think Matt, you touched on this a little bit too. You know, the -- the plumbing infrastructure is, you know, vital, obviously, but, you know, it also has certain, you know, fragilities, if you will. And, you know, even slight disruptions can lead to problems, and so, you know, just wanting to -- to kind of make the -- the comment that -- that close, you know, close collaboration needs to take place, you know, between the people that are involved in the infrastructure improvements and the -- and the public health, you know, community to ensure that if there is any problems that are -- that are going to result from, you know, wide-scale infrastructure improvement, you know, they can be detected quickly and we can put in place the appropriate interventions to, you know, avoid a serious

situation. So it's more of a comment, but, you know, since Jennifer you also mentioned resilience of the -- of the plumbing infrastructure, you know, drinking water infrastructure, I should say. I wondered if you wanted to, you know, comment on -- on how, you know, working together across federal partners and state and local partners, we might be able to, you know, make sure that there is enough attention being paid to any potential problems that might come up as a result of the infrastructure improvements.

DR. MCLAIN: Thanks, Paul. That's a great point and one of the values we see in having an inventory is that so the -- the people who live in this -- it -- live in the building or who go to school in the building and the public health -- the local public health departments and -- and state public health departments all have an understanding of where those service lines are in addition to the water utility knowing where they are. So this is something -- this is information that's valuable, as you say, from a public health perspective as -- as well as for the utility to be, you know, working on these projects to remove them.

We also make -- want to make sure that when lead service line removal projects are underway that -- that -- that water utilities are using best practices in the

conduct of those operations and we hope -- and this is something that's eligible for funding as part of the project design to include mitigation such as communication to the homeowners and -- and to the -- and to the people living in the building that this project is going to happen, providing filters for the home for a period of time, you know, at the beginning and -- and following -- a few months following the project in case there are any lead particles that are dislodged in the -- in the conduct of the construction. To make sure that those measures are put in place as part of the project design is really a best practice that can help those, you know, help protect the public health and those folks who are living in the buildings.

The -- I just want to also -- since I didn't have a chance when Ruth Ann asked a question, I just want to make sure that there's also an understanding that for the inventory requirements that they have to -- the -- the water utilities have to report on the entire line. So they have to report what they know about from the main to the meter and that also from the meter to the home so both of those should be and are required to be reported in their inventory.

MS. NORTON: Thank you. I thought that was the case.

DR. MCLAIN: Okay, just want to make sure that was --

MS. NORTON: Jennifer, are you -- are you also seeing that when we're mapping the lead lines that there are opportunities to be coordinating mapping of other lines that are either fiber or other water lines is -- is it simply -- I worry about the kind of siloing as we map through cities of the infrastructure and I didn't know if there's any effort to coordinate the mapping.

DR. MCLAIN: So I'm not sure, Ruth Ann, if your question is will they like designate if there's -- there's a use of other materials besides lead, or if you mean --

MS. NORTON: No, when they're digging, right? If they -- if they -- when they dig, if they find other lines does it go somewhere in a spreadsheet as cities, right, are trying to map a lot of different things that haven't been mapped over the years. I know this has come up in -- in some of the discussions, but we can talk about it offline.

DR. MCLAIN: Okay. Yeah, that's not part of our requirements, but we definitely would encourage I think what you're suggesting that local -- local communities try to coordinate as much as possible. Many of the goals underneath the Bipartisan Infrastructure Law, such as broadband access and lead service line removal and other initiatives like that, yeah.

MS. NORTON: Instead of having them all in different

scattered places but, thank you.

MR. AMMON: Thanks for the question. And thank you very much Dr. Mclain for that great presentation. It's now time to move on to public comments.

PUBLIC COMMENTS

MR. AMMON: We have three members of the public today that'll be speaking. I'm actually going to ask them to speak in the order that Paul had mentioned earlier, so we'll start with Tom Neltner from the EDF. He's available?

MR. NELTNER: All right. Thanks, my voice is a little rough but I'll try to get through this in five minutes. First of all, thanks to Jennifer Mclain for the presentation. Assistant administrator Ryder Cafox (ph), Jennifer Mclain and their teams are really doing an outstanding job of getting that funding out with the right policies. You heard some of that right now that it applies to the entire line and it applies to all our SF -- SRF money. I wanted to dispel a notion that rate money paid by customers cannot be used for LSL replacement on private property. That's an -- that's a notion that's come out, it's wrong. We partnered with Emmett Clinic at the Harvard Law School. We looked at 13 states with the most lead service lines. And there's no prohibitions. It's in the public purpose to replace these lines.

In addition, Pennsylvania, Indiana, Missouri, Illinois, New Jersey and Michigan have made it all explicit that you can use rate money to replace it, so the idea that you can't isn't based on the state laws that we've seen and I have asked -- looked at other states and haven't seen anything.

Next is the lead exposure risk index. That was a presentation in December. Basically it gives an index for a census tract that the CDC presented it on -- from a zero to one scale. I love it. I think it's important. It needs to be piloted, and it's really important that CDC gets moving forward on that now because over the next two years, as part of the Lead and Copper Rule that Jennifer described, they're going to be posting inventories effectively doing maps and if I'm a utility, the only thing that will come out in this map is that a homeowner who may have a -- elevated blood lead level has a lead pipe. Putting that lead exposure in that risk index out there provides context. We don't want people to think that pipes are the only source of lead exposure and that's where it's going.

On Clarksburg, one quick point, none of those samples on the -- on the dust were at the floor. I don't know why they didn't take any floor samples, even if it's a carpeting; that's really important. Another one is to say

that they found that the first sample, and this is very typical across the country, that the first sample wasn't the highest sample. That they had 55 parts per billion after 30 seconds. That's why EPA says, you should be sampling with fifth liter. Those -- this is health departments all across the country are taking the sample the wrong way. And then I will flag that the sampling results provided by Clarksburg are seriously flawed. If they said they had no lead service lines, yet have them because that bias is the sample selection. One last point, in the American Healthy Housing Survey and the NHANES, the latest data, it looks like racial disparities for lead have dismissed, have gone. They're no longer statistically significant and they may not even be present. So I think we really need -- this committee has to get ahead of the curve on that and really ask whether that data that comes from both NHANES biomonitoring and the American Healthy Housing Survey too is real, nationally or locally, and get ahead of the message. If I could see that it wasn't present, others are too. And you don't want to have the message go out that there isn't a problem. The message should be that this huge federal investment has actually worked in reducing those disparities. What Matt and his team do at HUD, what CDC have done, make a difference. So don't let loose the

message, get ahead of the curve and get the facts out there. Thank you.

MR. AMMON: Thank you, Tom. And now we will hear from Nathan Park.

MR. PARK: Afternoon all. My name is Nathan Park and I'm speaking on behalf of Earth Justice and want to thank you for the opportunity to speak with you today on the imperative need to end lead exposure and poisoning across this country. The Biden/Harris administration has outlined a whole government approach to addressing lead exposure and poisoning and LEPAC should push CDC to collaborate with EPA to the greatest extent possible on lead and ensure that EPA issues protective lead-related rulemakings that reflect the most up-to-date science on the impact of lead to children as -- and adults.

As is reflected in the most recent ATSDR toxicological profile for lead, lead is a cumulative toxicant that affects multiple body systems. Many people face cumulative exposures to lead in water, dust, soil, air, food and household products. CDC should work with EPA to ensure that the cumulative impact of lead across all routes and pathways are reflected across the various lead focused and related rulemakings coming out of EPA. For example, CDC should work with EPA on the Lead and Copper Rule. A recent updated analysis from EPA found

that 2.5 percent of children ages one through seven will have blood lead levels above the new CDC reference level of 3.5 micrograms per deciliter, even if they have no lead in their water, due to multiple sources of exposure, meaning any lead exposure from tap water is expected to put thousands of children age seven and under above the CDC's reference level. EPA promised in December 2021 to overhaul and strengthen the health protections in its LCR for drinking water, while at the same time letting the Trump administration LCR revisions go into effect which among other issues set up a leak involuntary testing program at schools and childcare centers after the first year, included a narrow -- narrowed definition of lead service lines which excluded lead joints and connectors and permitted over 90 percent of all water systems to avoid lead service line replacement altogether.

CDC should work with EPA, to ensure that any new Lead and Copper Rule reforms meaningfully account for CDC's updated reference level. Specifically, CDC and EPA should work together to model the different lead exposure outcomes for children based on different lead action levels since both agencies acknowledged the multiple pathways of exposure and since EPA is required to consider and explain alternatives if they settle on a particular lead action level. CDC should also assist EPA in

strengthening the soil lead hazard standard, along with the dust lead hazard standard, dust lead clearance level and def -- definition of lead-based paint, as was -- as was mandated to EPA by the Ninth Circuit Court of Appeals a year ago.

LEPAC should urge CDC to assist EPA in developing science-based health protective lead hazard standards by adopting a soil lead hazard standard of zero parts per million, adopting a dust lead hazard standard of zero micrograms per square foot for all surfaces, adopting a clearance level no higher than 5 micrograms per square foot for floors and 40 micrograms per square foot for windowsills, and adopting the lead -- definition of lead-based paint that is based on the lowest possible detection levels. Earth Justice also supports CDC's announcement to identify and close gaps in childhood blood level -- blood lead level testing as part of the Biden/Harris administration's Lead Pipe and Paint Action Plan.

Currently, early childhood lead testing requirements are largely determined by state level regulations and millions of children are not being tested due to insufficient testing requirements or because they're falling through the cracks of their state's requirements. Because of this CDC is missing crucial data on the breadth

of the lead poisoning crisis and many families are not receiving the information they need to protect their children. It is important for CDC to work in coordination with EPA and with state agencies in order to test as many children as possible, the goal of eventually testing all children to eliminate all lead exposures.

And finally, LEPAC should press EPA to use CDC's blood lead level of 3.5 micrograms per deciliter as the highest possible benchmark for any forthcoming lead levels. LEPAC should also press EPA to at least consider benchmarks that result in blood lead levels of zero. Thank you for your time.

MR. AMMON: Thank you, Nathan. And lastly we'll hear from Michael Kosnett.

DR. KOSNETT: Good afternoon, colleagues. Can you hear me? Okay.

MR. AMMON: Yes, we can.

DR. KOSNETT: Thank you. I'm Michael Kosnett. I'm a physician specializing in occupational environmental medicine and medical toxicology. I'm an Associate Clinical Professor at the Colorado School of Public Health. And for the past 30 years I have engaged in research, clinical care and public health activities to reduce and prevent all aspects of lead poisoning. My colleagues Perry Gottesfled, Deborah Cory-Slechta and

Diana Cebellos and I have presented a formal petition to LEPAC and CDC to establish a subcommittee on prevention of occupational lead exposure. It's my understanding that all members have received it and I'm not -- and it's part of the public record. I'm not going to reread the petition. I do want to emphasize to all of you two key things why this is the right thing for you to do.

Number one, the people of our country acting through Congress want you to do this. LEPAC has a duty to address occupational lead poisoning. Read the Congressional Act that created LEPAC. Read the descriptions of duties in the LEPAC Charter. Nowhere does the word child or children occur. Instead it refers to addressing risks to individuals which most certainly includes adults and workers. LEPAC is not a recapitulation of the Advisory Committee on Childhood Lead Poisoning Prevention, which I had the honor to serve on for several terms. LEPAC is charged with the duty to review and identify best practices for the prevention of lead poisoning, and this absolutely includes prevention of lead poisoning in the workplace.

The second reason is that the health risk is severe. The health risks faced by many adults with occupational lead exposure is death. That's right, death from cardiovascular disease. I encourage all of you to review

the studies that have established this. Maybe you need a presentation on this topic at your next meeting. Read the studies by Schober and others conducted on NHANES data or my wife's -- wife's coffin -- colleagues using data from the Normative Aging Study that have been published in the past two decades. These are the highest quality epidemiological studies possible. They are long-term perspective cohort studies. And they have established that long-term lead exposure at blood lead levels currently tolerated in U.S. workplaces increase the risk of dying from cardiovascular disease anywhere from 50 to 150 percent.

Now I ask each of you, can you think of a more significant health endpoint than death? It's a national disgrace, the current OSHA standards that have not been updated in more than 40 years allow this to happen. OSHA standards tolerate blood lead concentrations over a working lifetime of up to 50 to 60 micrograms per deciliter.

Members of LEPAC, I urge you to act. I respectively submit that you have a duty to address this topic and report to Congress. I strongly urge you to establish a subcommittee on prevention of occupational lead exposure. Under your rules, you can bring in outside experts on occupational lead poisoning to serve on the subcommittee.

They can come from academia, they can come from NGOs, they can come from the private sector, they can come from OSHA and they can come even from within CDC with the fine authorities at NIOSH. I urge you to act now, we look forward to your response to our petition and we stand ready to exist -- to assist. Thank you.

MR. AMMON: Thank you, Michael, for that. And thank you to all three who presented from the public today; we greatly appreciate it. Now we're only a minute ahead of schedule, which I think is an appropriate break to give everybody one minute back. Thank you all for keeping us on schedule, and I look forward to discussing everything with you back from our lunch at 1:15. Thank you all.

DR. RUCKART: Matt, it's -- it's 1:00 p.m.

MR. AMMON: Oh, I meant 1:00. Yes, sorry about that.

DR. RUCKART: Thanks.

(Break, 12:15 till 1:00 p.m.)

DR. ALLWOOD: Good afternoon, everyone. This is Paul Allwood, I'm the -- the Designated Federal Official on LEPAC and it is -- it is a pleasure to welcome all of you back for the afternoon session. We -- we do have a, you know, pretty full agenda for the afternoon and, you know, we're really pleased that so -- so many of you have been able to stay on -- stay online to be part of the meeting.

UPDATES FROM LEPAC MEMBERS ON LEAD-RELATED ACTIVITIES

DR. ALLWOOD: Now I have the -- the pleasure to request updates from LEPAC members on lead-related activities that are taking place in their organizations. And to start us off, I will ask Tammy Barnhill-Proctor to share your updates.

MS. BARNHILL-PROCTOR: Hi. The Department of Education is continuing to partner with EPA, and I'll share our information that is coming from, not only EPA, from CDC and -- and EPA regarding lead. So we continue to support the distribution of information for lead exposure and lead abatement acts and with our safe and healthy students, that is our office that looks at the safety environment -- that includes environmental, as well. And lead continues to be a part of a subject for -- for that, as well. So we continue to support and we continue to distribute and look to follow any recommendations that come from HHS, CDC and EPA.

DR. ALLWOOD: Thank you, Tammy. I think we have time for one or two quick questions for Tammy. Are there any questions? All right, seeing none.

MR. AMMON: Quick one. I have a quick one, Paul.

DR. ALLWOOD: Oh, sure. Sure, Matt, go ahead.

MR. AMMON: Is there, in terms of -- in terms of the work related to lead in schools, is -- is there any specific items that DOE has put in, you know, like their

strategic plan or -- or other working plans with EPA?

MS. BARNHILL-PROCTOR: To my knowledge right now, but I do know that we have a standing monthly call with EPA, and we have other members who sit on that committee and I will be joining in hearing what's going on in that space, but right now, no, there has not been any specific policy recommendations or a strategic plan that specifically calls out lead.

DR. ALLWOOD: All right. Thank you, both. Jeanne Briskin, can you please share your updates?

MS. BRISKIN: Thanks very much. Just import my notes. So thanks for the opportunity to give you an update from the Environmental Protection Agency. Regarding the dust lead hazard standards and dust lead clearance levels, you may recall that in 2019 we tightened the dust lead hazard standards which provide a basis for risk assessors to determine whether dust lead hazards are present. And in 2021 we lowered the dust lead clearance levels and those are levels that indicate the amount of dust -- lead and dust permitted on a surface after an abatement. There were new executive orders in May 2021, a decision by the U.S. Court of Appeals for the Ninth Circuit; as a result we're reconsidering both of those rules and expect to publish final rules in -- in summer 2024. We also withdrew two frequently asked questions in

November 2021. As a result, we want to make clear that property management companies must now make sure that they comply with EPA RRP rules. And so any individual or entity, including property management companies, are subject to the RRP rule requirements when they perform, or offer to perform renovation repair or painting activities for compensation and housing and child occupied facilities built before '78 and therefore these people must be part of a certified firm.

For lead safe work practices, in fall 2021 EPA's Lead Paint Program launched the enhancing Lead Safe Work Practices through Education and Outreach Program, a training and outreach initiative focused on reducing lead -- childhood lead exposure in 11 underserved communities. And we wanted to increase the number of RRP certified firms and consumer demand for lead safe work practices. We provided free trainings in English and Spanish, based on the community's needs, to over 280 contractors, 122 in English, the remainder in Spanish, and they became RRP certified. We offered free virtual web -- webinars to community leaders on two topics, lead awareness curriculum train the trainer for community leaders. And for the first time we offered an understanding lead webinar for anyone interested in learning about lead, about a total of 390 or so people participated in that.

EPA's strategic plan has a long-term performance goal for 2022 to 2026 to emphasize our commitment to reduce exposure to lead and to protect families, especially children. The full five-year goal is that by -- by the end of fiscal 2026 that we would complete 225 Superfund cleanup projects that address lead as a contaminant. And that represents the total count of completed removal and response actions that address lead and is reported quarterly. The FY '22 target is to achieve 45 completions and as of the second quarter the program achieved 15 of those 45 completions. Based on historical trends we see a majority of completions occur in the latter portion of the fiscal year. And the total target of 225 and the annual target represents stretch goals developed after a review of the actual accomplishments over the last three years.

Related to that, in December 2021 EPA launched a Superfund lead collaboration pilot to promote more effective collaboration on the local, state, tribal and federal levels to address multiple sources of lead in communities near Superfund sites. We're working with a broad range of stakeholders to leverage those multiple authorities and have new and ongoing partnerships with HUD and HHS. And then, an example of Superfund cleanups in Region seven, they report that they have remediated 306 residential properties at eight national priority list

sites, moving contaminated soils from those properties. And they anticipate remediating an additional 694 residential properties this fiscal year and they remediated 250,000 cubic yards of mine waste so far this fiscal year. So that's the breathless update from the Environmental Protection Agency. Thanks.

DR. ALLWOOD: Thank you very much for that very informative update. You know, just if I could just ask a clarification maybe. You started off by saying that new rules will require property management companies to comply with RRP. How -- how -- how is that being communicated so that the companies, you know, can be aware of this requirement and be proactive about complying with it?

MS. BRISKIN: Sure. So it's not a rule -- new rule, it's the removal of two frequently asked questions that were on our website that led people to believe that the property management companies did not have to comply. And we had a notice and comment to remove those frequently asked questions and that people would have an opportunity to understand our clarification of the policy. So we have sent a, just so you know, compliance assistance letter out April 18th. I can send you a link to that and we've done some communications that I don't have specific details on, but we have worked through our regional offices and through our enforcement office to get the word out on

this. If you'd like, I can -- can research more details and get that back to you, Paul.

DR. ALLWOOD: Thank you, Jeanne. Thanks and thanks for clarifying. We do have time for, you know, maybe one other question for Jeanne, if there's any?

MR. AMMON: Oh, I'll let -- I'll let Jill ask first and then I'll -- then I'll provide comment.

DR. ALLWOOD: Yes, Jill.

DR. RYER-POWDER: Yeah. Just a quick question. Is there -- are there any actions regarding reevaluating the soil, the EPA soil screening level for residential exposure of 400 milligrams per kilogram? I know here in California we use 80 milligrams per kilogram based on achieving a blood lead level of one microgram per deciliter. So I often run into issues with -- with people that are doing cleanup saying well EPA only requires 400. So I was wondering if EPA is -- is reevaluating or evaluating that 400 milligrams per kilogram standard.

MS. BRISKIN: I believe that that is a topic under discussion. I don't know the exact status, but I'd be happy to get back with you on that.

DR. RYER-POWDER: Oh, that'd be great. Thank you very much.

MS. BRISKIN: Sure.

DR. ALLWOOD: Thank you. And Matt, did you have a

comment?

MR. AMMON: Yeah. Actually on the soil, I think that we are working with EPA on using some of the data that we -- you all had in terms of clearance to see about what evaluations can be done in terms of that revision. I -- and it's part of our joint work that we're doing with you on the, you know, Environmental Justice 40 Initiative out of the White House, which is a lot of work under that. But one of the things I -- I did want to mention and -- and I love hearing about your strategic plan, your '22 to '26 because as you know we spent a long time working on that as well. And -- and even though we almost came to a conclusion in terms of wording to do a -- a joint goal here, which we will get to that eventually, but it is nice to know that we're actually actively sharing data on exactly what you said, you know, you're sharing data to HUD in terms of Superfund sites and denoting -- delineating sites so that we can do a matchup of our public housing properties or multifamily Section 8 properties, just to make sure that, you know, we're aware of -- of potential exposures and we can take active measures and we've done that in the past. And now we're taking a very proactive approach to making sure that some of the things that have happened in the past with exposures don't happen again. So it's great that we have

this partnership and that we share data all the time and your office as a Superfund works with our Office of Environment and Energy and the Office of Community Planning and Development on a regular basis and I think it's great work that people should really know about and because it really is in essence taking core data and doing something with it at the local level. So I -- I really appreciate that work.

MS. BRISKIN: Thanks, Matt. I -- I know that we really enjoy working with HUD and I really appreciate your expanding on some of that great collaboration. We couldn't do without you, that's for sure.

DR. ALLWOOD: Thank you. Thank you both. And Jeanne I just, you know, thought of something as Matt was speaking. So the -- the lead safe training, you had three virtual trainings, were those recorded? And you know if they were -- would -- are those available like on your website?

MS. BRISKIN: I will check for you.

DR. ALLWOOD: Okay. All right. Thanks Jeanne. All right, moving on. Now we will get updates from Dr. Michael Focazio. Just confirming that Dr. Focazio is on. If you are, if you're speaking you're on mute. Okay. Well, we'll -- we'll get back to Dr. Focazio later. Dr. Hatlelid. Can we have your updates now?

DR. HATLELID: All right. Thank you. I don't really have anything more to offer than what I talked about at our last meeting, but to just recap, we are focused at CPSC, the Consumer Product Safety Commission, on enforcing our requirements for lead content in children's products and for the lead containing paint regulations as well, which cover paints for consumer uses, as well as certain furniture articles and children's products that bear lead containing paint. And so this -- our enforcement actions occur all over -- all over the country in -- through our ports to -- to -- in a continual effort to try to prevent unsafe products from entering the U.S. and into the market.

DR. ALLWOOD: Thank you for that update. Any questions? All right. Seeing none, I am moving on to Karla Johnson. Can you please provide us with an update?

MS. JOHNSON: Sure. One of the things that we're working on, and this is in Marion County, Indiana, which basically encompasses all of Indianapolis and a few unincorporated areas, and -- and the health department is really -- probably, you know, the same issue a lot of people have, a lot of places have is the capacity to be able to do the work that we want to do. So one of the things that we're working on is testing all children and first grade and younger in all 11 major school districts

in the county and then in -- in -- in -- in Indianapolis so that includes a lot of early learning centers, as well as, the Head Starts and some of the other larger, bigger organizations. And in order to accomplish this, you know, I think we have a, what we consider is sort of a -- a twofold benefit here, is to get a lot of help to do this, but also is to impact the next generation of workers so we're working with a couple of schools. We're working with Marion University, and that's the Department of Public Health, the School of Nursing and the School of Social Work and they're all -- they're helping us with various aspects of outreach and testing. The Indiana -- University of Indiana's -- University of Indianapolis's School of Nursing. The Butler University science students, so they're going to help us as well in terms of our outreach. And then one of the things that we're involved in also is called the lead group and the lead group consists of the -- some workers, some professors from Indianapolis for the, I'm sorry, IUPUI, which is Indianapolis -- Indiana University -- Purdue University at Indianapolis, the IUPUI or the IU School of Law, the Hoosier Environmental Council, the Marion County Public Health and a few of the other -- and a few other organizations, just to -- to impact any kind of policy decisions that we want to make in the state regarding lead

poisoning prevention. And so I think the biggest thing that we're doing in our -- in my department, though, is really trying to impact the next generation of workers. We also get on a regular basis some IU med students who come through the department as well to get some education. So we really want to use that free labor in terms of getting those -- those students out to help us do testing, education and outreach, but also to impact them in the future, as well. Our work with the NAACP has also helped us a lot in terms of getting into places where we're not able to get into to -- to forward our message.

DR. ALLWOOD: Thank you, Karla. This is really great -- a great update and just pleased to kind of hear of all the different partners that -- that you are working with in Indiana. Any -- any questions from -- from anyone? Or any comments? Okay. Hearing none, we're moving on to Dr. Mielke. Can -- can you please share an update with us?

DR. MIELKE: I'll talk about this later, but I have -- I did a project in New Orleans which we looked at soils in playgrounds on two different sides of the freeway, the -- is I-10 going through New Orleans. In one side I advised the landscaping of the -- of the playground and the other side I didn't even realize there was a playground out there. The students did the research and

-- or did the collection and then we analyzed them. And I'll -- I'll present those later, but it -- there is distinct differences between the areas that had been landscaped and those that had not been landscaped and we do know something about the ease of doing the landscaping so that has proven to be important information to -- to address and move forward.

DR. ALLWOOD: Okay. Thank you for that, Howard. Any questions from Howard -- any questions for Howard? We're going to be hearing from him a little later on in the agenda. Okay. I am not seeing any, so I'll move on to Dr. Mohllajee.

DR. MOHLLAJEE: Hi. Thank you. This is Anshu Mohllajee for the Department of Public Health California. We just have provided new data on our website whereby in a report, so it's lead blood data and source data of our children who are full cases. And we also have that data by race ethnicity. We also continue our collaborative -- collaboration with the Department of Healthcare Services and where we on a quarterly -- every quarter and then also yearly, we provide match data with medical enrollment and our blood lead data to determine whether or not children are being tested. That information eventually Department of Health Services gives to their managed care plans and also to work with their providers to increase testing and

so we've been very successful for doing that for over a year. And we also are working on some educational outreach about lead service line and to make sure that our communities know about the opportunities around that. Thank you.

DR. ALLWOOD: Thank you. Thank you for that update. Any questions? We have time for one or two questions, anybody has any? Okay, Perri?

DR. RUCKART: Yeah. Hi. I have a question for you Anshu, I was just wondering if you would be able to just describe what you consider a case, and if the BLRV update is going to be influencing your definition of that at all?

DR. MOHLLAJEE: Yeah. Sure. So right now we actually have two types of cases. So every child currently in California at the blood lead level 4.5 or greater get some level of services. And currently it's a tiered approach and so children that are either at a 14.5 or a 9.5 to 4.4 persistent get kind of the gold standard of care, which is having the home visit and the environmental investigation take place. So that's what we would describe as our full cases. If resources allow, jurisdictions can provide those same services to the 4.5 to 9.4 levels. If they cannot, at the very least they do need to be able to doing outreach that family and also working with the provider and the family to make sure that

they have follow-up testing. We are working on adopting the 3.5 to 4.4 levels and making our basic cases that 4.5 to 9.4 currently go down to the 3.5. Of course we have to work on providing resources to our local jurisdictions, but we do have a plan and strategy for that and so we're hoping to implement that soon. But we have let all providers know that they should be following up children at 3.5 and greater, but we are going to be working on -- on trying to give them the -- the public health case management also at that lower level.

DR. RUCKART: Great. Thank you.

DR. MOHLLAJEE: Thanks.

DR. ALLWOOD: Okay. Thank you for that. Let me just announce that Jeanne Briskin provided some web -- web links for the information related to managers RRP information which I -- I put out in the chat and, Perri, I hope I didn't -- I didn't do this the wrong way.

DR. RUCKART: It's okay.

DR. ALLWOOD: Okay.

DR. RUCKART: I got some new information from tests, but we can discuss that later.

DR. ALLWOOD: Okay. All right. Thank you. And then Jeanne has also provided some additional information and -- and the web link for the NHANES lead safe work practices training, you know, which the website has links

to all of the training, as well -- as well as other aspects of the program. So please check those websites out if you would like additional information. Okay. All right so continuing with updates, it's now Dr. Ryer-Powder's turn to give an update.

DR. RYER-POWDER: Okay. So I -- I have two updates, one of them it's -- it's -- it's regarding an -- an -- an FDA guidance and I am not part of FDA, at all, but I -- I follow the information regarding lead in food. So I just wanted to make everybody aware that on April 27th, 2022, the FDA issued a draft guidance providing the draft action level for lead in apple juice. And the FDA says the new levels are intended to reduce the potential for negative health effects associated with dietary exposure to lead and the action supports FDA's closer to zero action plan which intends to reduce the exposure to toxic elements in food. Excuse me, the -- the action levels are actually determined using FDA's interim reference level or their IRL -- I'm sorry, which was actually based on the former blood lead reference value of 5 micrograms per deciliter. They do say in a footnote that that level was updated, but they do not incorporate that new blood lead reference value in this new guidance. So it -- it made me -- it made me think about and wonder if and when FDA is going to -- going to recognize the new blood lead reference value

and if and when they are, are they going to start incorporating it into their guidance for action levels for lead in food.

DR. ALLWOOD: All right.

DR. RYER-POWDER: And -- and then my -- my other -- well, my other update was more related to what I'm working on a case right now in Southern California, where there's lead contamination in an area called Parkways in a residential development, which is the area between a side, like the sidewalk and the street there's that strip of grass and we're trying to develop cleanup levels based on site-specific exposure assessment. So that's -- that's a case that I'm working on. That's it.

DR. ALLWOOD: Okay. Thank you, Jill. You know, very important updates, you know, we -- we are aware of the new FDA guidance and, you know, really do appreciate, you know, that agency's efforts to help protect our kids. Are -- are there any questions for -- for Jill?

DR. RYER-POWDER: So, so is anyone -- or is anyone from FDA on our -- on our panel or is there a way to get information as to how the blood lead reference value is being incorporated into the programs or is there some kind of link or liaison?

DR. ALLWOOD: So Jill, we -- we do have, you know, ongoing interactions with FDA on a variety of things and,

you know, this is one of those that I don't have a specific answer for you as to, you know, what our current discussions with them are related to this specific guidance. But, you know, I will be -- we'll take this back to -- to our center and -- and see if there are follow-up discussions that need to be -- to be held to, you know, understand a little bit better what the FDA's plans are over the long term with respect to setting their guidance levels.

DR. RYER-POWDER: Okay. Thank you.

DR. ALLWOOD: Thank you. Okay, seeing no hands raised or any indication that anyone wants to -- has a question or a comment, I'll move on now to hearing from our non-voting liaison members. And I'll start out with -- with Jamie -- Jamie Mack who is with -- who's representing the Association of State and Territorial Health Officers.

MR. MACK: And I've only been representing them for a very short time in this sense. So, you know, I'm happy to be part of conversations, but no specific updates at the moment.

DR. ALLWOOD: All right. Thank you, Jamie. And thank you for being here. Ruth Ann -- Ruth Ann Norton represents the Green and Healthy Homes Initiative. Would you like to share an update, Ruth Ann? Okay. All right.

Not hearing Ruth Ann, we'll just move on to Dr. Patrick Parsons who is representing the Association of Public Health Laboratories.

DR. PARSONS: Hi, Paul.

DR. ALLWOOD: Hi, Pat.

DR. PARSONS: Can you hear me okay?

DR. ALLWOOD: Yes.

DR. PARSONS: Good. So I serve on the APHL's Environmental Health Committee, and within that I -- I take -- I lead a small group focused on -- on lead issues and so there are a couple of things that there are ongoing. They're developing guidance for public health laboratories to, you know, implement 3.5 and to modify, you know, internal procedures. There's another document on the prescreening of supplies to help minimize background contamination. But these are, you know, fairly brief documents and they draw heavily on a much broader document that comes from another body called the Clinical Laboratory Standards Institute.

So I'd share the Document Development Committee for a document called C40, which is the determination of lead in blood. Now that document has been around for quite some time; in fact, I chaired the original committee back in the '90s that developed the first version in the wake of 10 micrograms per deciliter. It was a long time ago. And

it was updated in 2013 and we were on our way to finishing the update when in September the new blood lead reference value was introduced. So I very quickly pulled it back from the, you know, the review processes that we really need to implement this and deal with it, you know, across the broad spectrum of -- of what goes on in clinical laboratory medicine. So I can tell you that the document will include 3.5 as a definition of elevated. It recommends that any initial value above 3.5 be confirmed with a new outcome in the lab, so that's internal.

We recommend the contamination -- background contamination be limited to no more than .2 micrograms per deciliter, that's a change from what was previously recommended, which was .5. And it contains an appendix that in very great detail lays out how laboratories can prescreen, you know, devices and supplies to make sure that they are -- are fit for purpose. It also recommends that the acceptable criteria for PTB plus or minus two micrograms per deciliter so you probably know that the -- our branch of the civil -- federal government that oversees PT for CLIA CMS still operates with plus or minus four and we have been, certainly when I served on the previous ACCLPP we were making those recommendations to plus or minus two a decade ago and, of course, it's -- it's very slow to change but that's in this consensus

document, so we hope that laboratories will be implementing that regardless of what is currently required -- all of the federal PT programs. So I think all in all we're making good progress. That document is now undergoing a -- a -- a review process that CSLI has all of its documents. Stakeholders can weight in. The committee will come back and address any comments and then it should be published. But much of what was recommended there has been shared with the APHL Committee, and so we expect that to be disseminated sooner than when the CLR document is published. So I think that actually completes my update.

DR. ALLWOOD: Thank you, Patrick, for that very, very important update. And we're really pleased to hear that, you know, progress is being made, and you know, in addressing the, you know, testing, you know, accuracy challenges, and you know, also addressing PT matters. Where -- where will the consensus document be ultimately published?

DR. PARSONS: I would probably guess anywhere from maybe a year to as much as 18 months; it depends on -- on how quickly it goes through the process. It'll already been through the editors at CLSI. Now, I pulled it back because we didn't want to publish a document that had five; we wanted to make it relevant, so we were successful in pulling it back. So I think it probably will be closer

to a year, but a lot depends on what kind of comments we get back and if there are lots and lots of comments, then we have to come back and develop consensus on how to, you know, modify the document or, you know, respond to those, those comments as we get them.

DR. ALLWOOD: Okay. Thank you so much. And then -- other, you know, publication would be on a website or are there other ways that -- that would help to ensure that the partners, you know, have easy access to it once it's finalized?

DR. PARSONS: So CLSI, you know, provides documents in hard copy as well as electronic. It is a subscription service and so -- but I think that most, you know, public health laboratories that subscribe to CLSI because there are a broad range of documents that are very, very useful. And so it is, you know, something that, you know, you have to pay a fee for to -- to -- to get the -- I don't know about other health plans, but I think many are, you know, you know, subscribe to those -- those services from CLSI.

DR. ALLWOOD: Okay. Thank you so much. All right. We have time for, you know, one or two additional questions for Dr. Parsons, if there are any. Okay. I am not seeing any so let me move on now to Dr. Stephanie Yendell who's representing the Council of State and Territorial Epidemiologists.

DR. YENDELL: Hi. Good afternoon. So the Council of State and Territorial Epidemiologists has two updates. The first, is that the blood lead position statement is -- has an update in progress. The current position statement is updating the prior position statement which was 15EHO1; it will change the name of the condition under surveillance from elevated blood lead level to lead exposure, lead in blood, and it will also update the criteria for reporting the case definition and case classification. In 2021, of course CDC announced an update to the blood lead reference value based off of NHANES data. And in recognition that there is no safe level of lead, CDC also noted that they will no longer use the term elevated blood lead level and instead will use at or above the blood lead reference value in reference to children.

Subsequently the 97.5th percentile for adults in NHANES was calculated as 3.49 micrograms per deciliter. So the revised position statement, it has two tiers of -- of case definition and classification. The first is for lead exposure, lead in blood, and the second is for blood lead levels at or above the reference -- the reference level for intervention. And the revised position statement also updated the laboratory value for case -- case classification related to the second tier from

elevated blood lead level at or above 5 micrograms per deciliter to blood lead levels at or above the reference level for intervention of 3.5 micrograms per deciliter. So the updated position statement will enter CSTE membership review this week and if it passes member review it will be presented for council ratification at the CSTE annual business meeting on Thursday June 23rd of this year. And CSTE looks forward to looking at the implementation of the updated values later this year.

The second announcement is a reminder that the CSTE annual conference is coming up. So this year's annual conference will take place June 19th through 23rd in Louisville, Kentucky, and virtually. The conference will include workshops, plenary sessions with leaders in the field of public health, oral breakout sessions, roundtable discussions and poster presentations. Conference attendees meet and share their expertise in surveillance and epidemiology, as well as best practices in a broad range of areas, including environmental health surveillance, and it features a virtual workshop focused on environmental hazards and cancer clusters and a dedicated environmental health session track. So let me know if there are any questions. Thank you.

DR. ALLWOOD: Thank you for those updates, Stephanie. I'm really pleased to -- to hear of the work being done on

the -- on the revised position statement, and, you know, pleased that CSTE has been, you know, such a strong partner with the CDC and -- in so many things. We're looking forward to -- to, you know, the -- the revised position statement once it has been fully acted upon by your -- your members. And just one question on the -- on your upcoming conference. Would the -- is the entire conference accessible both virtually and in person?

DR. YENDELL: Yes. It's my understanding is that it is going to be a fully hybrid conference.

DR. ALLWOOD: Okay, great, great. And it's in June, can you please repeat the date in June?

DR. YENDELL: Yeah. June 19th through the 23rd and June 23rd is the day of the business meeting which is where if the revised position statement passes member review, then it would be up for the council ratification at that -- on that day.

DR. ALLWOOD: Okay, thanks. I see Perri has a question.

DR. RUCKART: Yes. It's not a question, it's a comment. I just wanted to piggyback off something Stephanie said. We've gotten a few questions about the national notifiable disease surveillance system definition for a lead poison case here, and it is closely -- it's tied in with when CSTE updates their position statement

then we'll be able to update that NNDSS, I just wanted to let everybody know. Thank you.

DR. ALLWOOD: All right. Thanks, Perri. And we do have time for, you know, one or two additional questions. Oh, I just saw a note that -- that Ruth Ann has come back to the meeting. Are you here Ruth Ann or would you -- would you be able to give us an update?

MS. NORTON: I am.

DR. ALLWOOD: Would you be able to give us an update? Okay.

MS. NORTON: Yes. And I'm sorry about that, I was delayed, and I want to thank (indiscernible) for flagging this and getting me back on time. But thank you all. So some updates on Green and Healthy Homes Initiative and our work. As -- as many may know we launched, in the last year, a $50 million hospital community benefit fund with the University of Pennsylvania, and -- in Lancaster, and we've now matched that with another $12 million worth of funding and so we're advancing I think one of the most interesting models there because this is a hospital running a lead reduction program for a count -- for a county and really driving that in partnership with the HUD grant in the city. And they're also a HUD Healthy Homes production grantee. In the state of New Jersey, we are about to launch with the Board of Public Utilities a full

house intervention model that will become the model for state housing in the state of New Jersey that will include lead reduction of -- aligned with climate measures, energy efficiency and healthy housing. And in seven cities across the country, Detroit being the first, we just launched with the ProMedica healthcare system of utilities and foundations the first of seven cities where we'll do a thousand homes of full lead reduction coupled with health-based housing around asthma, falls and energy and climate measures. And part of it is to demonstrate the need to do lead reduction in all of the, not only the weatherization work as a -- as a pre-weatherization measure, but all of the climate work that's moving forward on electrification and decarbonization. That is an opportunity to get into housing to historically disinvested communities. In all of these projects and many others that we're working on, we're going to be measuring those health impacts, including lead, as well as the racial equity benefits, and in -- that come in terms of jobs, wealth retention, school attendance and performance, both in the short and longitudinal basis with partners, including socially determined in many universities.

And later this year we're going to be announcing a partnership with ACUs around the country on lead

reduction. I'm happy to talk about that later in another update. And I, in the interim of joining this as a non-voting member, I also recently became after -- again, after 25 years, the Chair of the Maryland Lead Poisoning Prevention Commission. So we will be providing many updates as to where we are going to be going in the next -- we'll have a new governor coming and advancing more critical investments through our CHIP program. So I was so glad to hear from Mona today on that work. I'm happy to always answer questions. I'm happy to do an offline briefing on GHHI. Most of all, Paul, just delighted to be here.

DR. ALLWOOD: Thank you so much, Ruth Ann. We're -- we're really happy to have you and, you know, thank you for that very nice update. And we do have time for one or two questions for Ruth Ann.

MR. AMMON: I don't have a question. It's just -- this really pairs nicely with what we heard last with the Lead Safe Cleveland work that this work is innovative, you know; it really breaks normal boundaries, it really breaks the way we think about how our normal programs work in a community, to totally think outside the box, you know. I think that I've -- we've -- we've always said that the most effective thing that we can do is just, you know, not focus on our traditional lines of bureaucracy but able to

look to the left and the right and really patch all of this work together at the local level and bring different sets of partners to make it happen for the same common outcomes. And I think that -- that, you know, this work and elevating this work around the country is really going to completely rethink the way we traditionally have done work in the past. And I think that's the exciting thing about it and the fact that we're -- it's being tested in so many cities around the country who all have their own unique problems, but it's basically creating a framework where other areas can adopt to be successful, because there isn't just one program that can fix the multitude of problems. It really is a whole community of solutions that need to be built around this work and this does that exactly.

MS. NORTON: Thank you, Matt, you articulate this so much better than I could, I think. By next -- on -- on the 18th of May I will be testifying in front of the Senate Banking Committee and the testimony is on climate energy efficiency and resilience, but if you happen to be -- and want to nerd out and tune into C-SPAN or whatever, at the heart of it is going to be lead reduction because we have to -- we have to take advantage of the dollars that are going in for climate and energy efficiency and other social determinants of health measures. I see all

of it as a pathway to expand the dollars on lead reduction and find a way that if we didn't get the build back better proposals to be able to up the dollars on -- on this. I will say there are a number of cities still also, Matt, Paul, and everyone, that are still looking at the ARPA dollars on lead are still on the -- on the decision, like, up on the chalkboard. Hopefully, we will get more than we have but I've got to commend, for example, Milwaukee, who's put in 26 million a year over the next three years, it looks like on lead reduction money out of ARPA, Mayor Barrett before he left started that. We're looking in New Jersey at the potential of the -- Governor Murphy putting 300 million in on lead service lines and 300 million in on lead paint. That kind of -- that's a game changer.

So there's so much happening to do this, but what the alignment, what we are doing, for example in the ProMedica partnership in Cleveland is to build around the -- any other gaps on healthy housing that makes the Cleveland -- Lead Safe Cleveland phenomenal work they've done on that fund to be even much, much more impactful. And as I said, we just launched in Detroit and what was interesting about Detroit, and the money that will go to lead and healthy housing and energy, it was Detroit Energy, the utility putting actual dollars in healthcare through ProMedica, the city matching up monies and the Gilbert Family

Foundation folks know Rocket Mortgage and Quicken Loans -- the same family. So you have the intersection there happening and I think social determinants of health agendas for healthcare are moving us so fast that we have to have a (indiscernible) strategy here. So thank you, Matt and Paul, for the opportunity to talk about this.

DR. ALLWOOD: And -- and we thank you, Ruth Ann. You know, we know that you and your organization, you know, have been prime movers, you know, in helping to, you know, push the -- the agenda, you know, for -- for more investments in -- in lead poisoning prevention, not just, you know, in terms of the -- the drinking water infrastructure but also, you know, housing related -- other housing related sources of lead. So we really appreciate having you here and thank you for your very informative comments. And now continuing on with updates, we will now hear from Lauren Zajac who is representing the American Academy of Pediatrics. Lauren.

DR. ZAJAC: Yes, hi. Thank you. Few updates. The first is the AAP is actually the national program office for a program called the PEHSUs, or the Pediatric Environmental Health Specialty Units. And another hat I wear is, I'm a pediatrician with the Region 2 PEHSU and the PEHSUs are collaborating right now about how we can help support pediatricians across the country in

communicating with families about what low level lead exposure means and what are the next steps. So especially with the reference value recently being lowered pediatricians are, you know, reaching out to us saying, what do we do? What do we do with this? How could we support families? And so we're coming up with a series of documents and hopefully videos that can help with risk communication. And also, hopefully, and I just -- I really appreciated Dr. Hanna-Attisha's presentation about Flint with all of the resiliency and positive interventions that have been brought there that enhance brain development, and, you know, it would be really great, you know, if part of the lead conversation -- because lead is one of many exposures, broadly speaking, that could impact brain development. And so putting it in the conversation of how do we enhance brain development from an early age, lead being a piece of that.

And other updates. I know that the AAP has been working a lot with pediatricians on issues surrounding the recall on the lead care tests. So I'm not sure if we're going to talk more about that at the 3:25 session today, but I know pediatricians have been, you know, struggling with the shortages of the point of care testing because of those recalls. And so, you know, AAP has -- appreciates all of the communication and support that you all have

provided along the way. But that's still up, you know, on our radar and we're still working through that.

DR. ALLWOOD: Thank you Lauren for those very, very informative updates. I'm, you know, really pleased to hear that AAP through the PEHSU network is beginning to take a close look at, you know, those low levels, low levels of lead in blood and, you know, trying to come up with guidance, you know, for the members about, you know, what -- what they mean and how to appropriately, you know, provide care in those situations.

DR. ZAJAC: And it's hard because resources are so different across the country. Where I practice in New York City we're very fortunate to have a very robust Department of Health and Lead Program where getting home inspections and interventions for very low blood lead levels is possible. Whereas, you know, when we work with pediatricians or families in other jurisdictions that may not have access to those resources and so that makes messaging about what's considered an elevated lead level even harder with these providers and the families who are impacted, especially when there's not always a resource at the ready that a family can access.

DR. ALLWOOD: Yeah. That's very awesome and, you know, it's a really great point, you know, we do understand that there are significant inequities, you

know, in terms of not only the risk of exposure but also in availability of testing and other -- other aspects. So we stand ready to partner with -- with AAP and, you know, as we already do very actively in a number of different ways, as you move forward in those discussions.

And let me just take a moment to just let everyone know that Dr. Parsons indicated that while the CLSI, you know, in reference to the consensus documents that -- that are now in process, while the docs are available on a subscription basis the APHL documents are posted on their website and that they are freely available to anyone who wants them.

Okay. All right. And now, I was remiss in not calling upon Matt for an update from HUD, you know, work in very, very close partnership, and, you know, evidence by, you know, and Matt's very, very prominent and significant role, you know, on this advisory committee and -- and -- in so many other ways, you know, we -- we are talking to one another on an ongoing basis, and, you know, doing all that we can to ensure that there's good coordination and collaboration across our agencies.

So I'm, you know, we're really pleased to have Matt, you know, I'm, you know, as our Chair, but also representing, you know, this very, very important agency and Matt, do you have any updates for us?

MR. AMMON: Yeah. I'm -- I'm going to blast through six minutes real quick. First, it is -- it just on Lauren's thing too, you know, it's trying to find what works best and what resonates in communities and, you know, normally people probably wouldn't think initially about PEHSUs, but, you know, it's one of those things where we see as a huge viable resource to communities.

And we've been getting as -- as actively involved as we can to make sure that we make those connections. And then -- and then moving from -- I can see up from, you know, what Ruth Ann was talking about that, you know, our work being embedded in the environmental justice work. And yesterday, on our -- Jeanne had talked about -- Jeanne talked about our FY 2226 Strategic Plan, and yesterday I updated our deputy secretary and all senior staff on our strategic plan. And -- and I wanted them to recognize that the most amazing thing about -- about my office, I'm talking about health in housing, is that it's no longer remarkable to talk about health in housing. It's no longer something that we get, you know, people don't understand the link between health in housing or housing as a social determinant of health. We've made great progress in the department, sometimes incrementally, sometimes in big chunks. You know we're focusing on the health of the occupants and whether that's related to lead

or whether that's related to carbon monoxide, or radon we've -- we've -- we've done a lot and there's plenty more for us to do, but again the fact that a housing agency is talking about poor health issues and making those linked together is something that, you know, we've been working on for, well, I don't know, three decades now. I'm in the Ruth Ann camp too, 29 years.

And -- and here we are and -- and where we are is a place where in HUD's strategic plan, which, you know, nothing gets measured unless it's -- it's in this plan, right? What gets measured, what gets done. So as an agency priority goal, normally when you think about HUD, right, you think about reducing homelessness, rental assistance, of course, promoting homeownership, and sustaining homeownership, things of that nature, and then you have this other core objective which is environmental justice and that just gets down to our work, you know, our collective work in the department to focus on reducing hazards in at-risk housing, making them lead -- lead safe and healthy. The fact that that is an agency priority goal, even in itself, really -- really just proves the amount of work that we have been able to do collectively to highlight housings' impact on health. And so as we focus on our -- our -- the work in the strategic plan, you know, not only is it, you know, just regarding our work in

the Office of Lead Hazard Control and -- and Healthy Homes, but it's also looking at the myriad of work that's going on in the department and whether that is, you know, increasing community awareness or aligning -- and aligning HUD assisted housing inspections and their protocols, prioritizing reductions in exposure to lead in other contaminants, minimizing radon exposure, really taking a broad view about looking at our environmental regs to do -- to see what we can do to, you know, improve them, targeting our programs in a way, and we've heard a lot about targeting in terms of making sure that the money is getting to the right areas. We're part of the EJ40 work that, you know, focuses our work in disadvantaged communities.

And then, again, all of the work that we are doing with not -- not only in the building but outside of the building, and so my pitch in my little story is that at this point in time, we have historical amounts of money that's available to communities. We'll have over $600 million this year available to communities to do lead hazard control and healthy homes work. We'll have money related for healthy homes. We'll have money related for radon mitigation in public housing. We'll have research money. We'll have money related to grant programs that combine our work with -- with weatherization. It's

imperative that we get the word out so that communities get this money and use it in their communities to sustain the work that we have been doing, collectively, for all these years. And so, again, it's an historic amount of money, it really is imperative that we get communities to reclaim funding so that we can continue working with them to really achieve these outcomes which are so desperately needed. I'll pause there. I know we have one minute.

DR. ALLWOOD: Thanks, Matt. And, you know, I want to thank everybody for -- for giving your updates, and at this point I'll turn it back over to you, Matt, for the rest of the meeting.

MR. AMMON: Yeah. So thank you all again for giving us your great updates. I'm going to turn over to Howard Mielke, give us an update and a presentation on lead in air, soil, and blood.

LEAD IN AIR, SOIL, AND BLOOD

DR. MIELKE: Thank you very much, Matt and Paul and everyone. Okay, so I'm really, first of all, I'm proud to be a member of LEPAC, and I was selected by the American Chemical Society to -- as a position in this committee. Next, please. Do I change the slides? Who changes the slides? Okay. Thank you.

Normally we pay attention to the right side of the diagram that I'm showing the figure and prominent in that

is lead-based paint and yes, that's of course very important and lead in water, lead in pipes, et cetera, but I'm going to focus on another cycle and that is lead in soil as it's related also to auto emissions and industrial emissions. And the cycle that takes place is from the soil to the air, back to the soil, and we know in the research community we have quite a bit of information about that. Next, please. Go ahead.

So my objective is to inform LEPAC about the facts of the continuing impact of lead in air and soil on lead exposure. And this topic has not really received the kind of attention that it warrants and I'll show you why. Next, please.

The paint industry and the Ethyl Corporation reported about 6 million metric tons of lead in their respective products. And the paint of course is visible, and unfortunately the lead dust from exhaust was totally invisible. Next, please.

I think I have a few, yeah, so the -- my goal is to demonstrate why dust from the use of leaded gasoline must be addressed to advance lead exposure prevention. And we didn't really have the ability to measure lead with sensitive instruments and they were first used in blood lead and clinically, but I took the same instruments and applied them to the environment. Next, please.

Here are some statements about lead in soil and lead in dust in cities. The Lead Industry Association on their board -- it had a policy decision in a board meeting in April 13th, 1969, and what they've stated, basically, it should be a primary objective of any lead industry association program aimed at resolving the childhood lead poisoning problem to keep attention focused on old leaded paint as the primary source and to make clear that other sources of lead are not significantly involved. I wish I had known this earlier. I probably would have been able to find better ways to describe our research. The Ethyl Corporation followed up, actually, with a prominent paper EHP, lead in dirt around houses is due to paint from the houses. Lead antiknock agents are additives are therefore not significant contributor to lead content of dirt around houses where children usually play. And I will talk about that, as well. Dr. Sayer, M.D., in Rochester, New York questioned lead paint chips as main source of lead exposure and he found larger amounts of lead dust in inner city homes compared to children's hands in then in suburban homes in children's hands. And that was a very important statement, but he couldn't -- he didn't follow up on it, he was very frustrated with what took place. And later on Clair -- Clair Patterson said, sometime in the near future it probably will be shown that older urban

areas of the United States have been rendered more or less uninhabitable by the millions of tons of poisonous industrial lead residues. So next, please.

The question is whether these statements were warranted. Next, please.

My work was primarily on soils from the beginning, I worked with Rufus Chaney at the U.S. Department of Agriculture. We developed a method -- method for measuring the amount of lead in soil and we used the city of Baltimore inner city and outer city as a place for research. And next, please. Next, please.

They haven't seen next yet. Can -- can I do the changes? So we compared the high lead and low lead garden soils in Baltimore. The low lead soils were predominantly in the outer -- outlying areas of the city and the high lead soils were in the inner city. And the -- because of the P value, the probability value, we didn't -- chance alone does not explain this difference between the inner city and outer city. So we expected that the soil lead pattern in all large cities would be similar to Baltimore. Next, please.

The test of this was done in the twin cities. You have two cities, Minneapolis and St. Paul, and what we noticed is that the inner city soil lead levels contained sort of 500 to 1000 parts per million, a tenth of that in

the suburban areas and a tenth of that in the rural areas. Very striking differences between different parts of the city. And the question then is about community levels. Are there differences between larger and smaller cities? Next, please.

So we did some more work on various sizes of cities in Minnesota and what we discovered is that Minneapolis, St. Paul, Duluth had especially high lead levels within the -- these soils and that Rochester, the oldest city, and essentially lead-based painted buildings in Rochester had the lowest amounts of lead. And at this point, I want to point out that, yes, the foundations do have higher lead. Next, please.

The question is why such high lead levels along the foundations? Next.

So particles -- the prime particles from exhaust of lead particles are very dense and they pierce the boundary water -- boundary layer around houses and fall down to the side of the houses, and depending on the distance from the road you'll get different amounts of lead in the environment. And so you've got to pay attention to the building side as a collector of lead and the areas around the foundations, the high risk areas are clearly close to the buildings. People should know this. Next please.

My -- the mission that I took on was the result of my

child getting lead poisoned back in 1983 -- who knew Herbert Needleman -- and he kept talking about 10 micrograms per deciliter. Well, my daughter's lead levels were much higher than that, and I became motivated as to what to do. What -- what's the problem here, how come children are getting exposed. Next, please.

I formed the lead coalition and it was a small group committed people working together to understand the problem. Next, please.

The Minnesota Department of Health entered into our work. We worked with the legislature and what we noticed is that blood lead levels follow the same pattern as we we're seeing in the soil -- lead in soil, Minneapolis having the highest lead levels. Let's see 60 percent were below the -- the standard at that time of 10 micrograms per deciliter and that the other 40 percent were above that and as he went to Rochester none of the children in that city tested above 10 micrograms per deciliter. Next, please.

We also learned through the New England Journal of Medicine that the addition of the catalytic converter in 1985 meant there was a reduction in the amount of leaded gasoline to protect the catalytic converter, and as the lead levels came down with a change in automobiles, blood levels also came down, but in 1983 -- Next, please.

In Minnesota we discovered that there was an increase in the blood lead levels in the children. Next, please.

The Minnesota legislature -- and go ahead. Next -- all -- all through -- through all these.

The legislature realized that there was a problem that was related to lead in soil and they started realizing it was related to lead in air and in the primary focus then was to get lead out of air and that is petitioning Congress to get lead out of air. Minnesota legislature attempted to ban leaded gasoline, but it was prohibited from doing that. Next, please.

So there was a hearing. I was invited to give a presentation at the hearing, and basically the petition required action by the EPA and they did revise the schedule for banning leaded gasoline by ten years, essentially, with a rapid phase-down and I worked hard on that topic. Next.

So what does it mean to take lead out of gasoline?

The children in the United States had a remarkable reduction in their blood lead levels. Next, please.

And these were -- decreases also observed in other places. Next, please.

It's looked at other cities, Detroit, big city, New Orleans, big city, similar types of reductions that took place in blood lead levels. In a smaller city like

Pontiac, Michigan had lower lead levels, the children had lower lead levels from the beginning and that went -- went down. In the two -- two cities -- sets of cities about less than 8 micrograms per deciliter for the larger cities versus less than 2 micrograms per deciliter for the small cities. Next.

So it turns out the same pattern shows up around the world, and the interesting thing is that Sweden banned lead paint in 1920s. They -- they've had lead free fuel in 1995 and as there was a reduction, they came to a stable amount of around 10 -- 2 micrograms per deciliter in the small cities. Next.

The question is why there's a continuous amount of lead in that blood lead levels that continue to be high. In London they banned lead in petrol in 1999. And in a recent study, what they found is that the isotope composition of the particles in the air match the red -- road dust and top soil isotopes. So from the era when they were using lead petrol and it became clear that atmospheric lead was reaching a baseline in London and that baseline was creating an issue where there was continuous exposure taking place. Next, please.

We did the same kind of -- we did a study in New Orleans where we had soil lead and we compared soil lead with blood lead. Next, please.

And what you find is that the high lead areas of the city are found in the same areas as high soil lead. Next, please.

Next.

So the question then, how come soil lead is so potent and it turns out that the potency is related to the amount of lead dust on the very surface. And example, this is HUD grant study that we did where we measured using what we call the PLOPS sampler, the amount of lead dust that arrives at the surface of the soil, and then we compare that to the amount of lead that was being measured in the soil using a soil technique and what we found is that the -- the -- you completely misinterpret how much lead is on the surface if you only use a sample of soil, the content of soil. And that's very important and, for example, 400 parts per million is what, 150 times higher than the interior of 10 micrograms per square foot. Next, please.

We've done a long-term study in New Orleans, soil lead and blood lead maps from 1998 to 2001, 2013 through 2017, worked with the health department, they provided the blood lead data, which I think was CDC's program, and what we saw was that, first of all, over a period of time there was a reduction in the amount of lead in soil and that was fascinating. Next.

What we then realized is that the amount of lead in

the soil matched the blood lead levels so as soil leads came down blood lead levels also came down. And they -- they are very strong associations, 10 to the minus 26. Chance alone does not explain relationship between the two. What is important to me is that if you look at 50 parts per million lead, you find that most children are -- do not have high lead levels. Above 50, you start getting increasing numbers of children with blood lead levels above 3.5. And this is -- turns out to be a very important part of the issue. So why did the soil lead decrease? Next.

It -- the decrease took place by some sort of internal process. We think it's, by observation, a changing of soil from below to above, this is a regular kind of issue. But what -- what we saw in New Orleans is that the areas of the city that had high blood lead levels -- I'm sorry, high soil lead levels also had -- were occupied by the black population and it tended to be high -- high soil -- high blood lead levels. In -- in the lower -- in the later study, the near studies about 50 percent black, but still this is the median lead level about two and there's still a very large number of children that are above the number of 3.5.

So near and far in -- in both cases, the other area had very low lead levels in the soil and that's where most

of the white people are living compared to the black people. I do want to point out that there's a big difference in the life span between areas near the city compared to far away from the city and near the city about 50-year lifespan. In the far -- further away about 80-year lifespan. Tremendous difference in this disparities of major issue. Next, please.

So is disparity something that we should live with? I think all cities have this problem. What we did is -- I've done a lot of work on changing soil in the city of New Orleans. There was a -- a greenway project right next to the public housing that was landscaped at my direction and they brought in some very clean soil which is available outside of New Orleans. There were two parks -- two parts of the park, I didn't know about this part. Next, please.

My students collected the soil. So what we saw was that the amount of lead in the lakeside area that -- where it had been landscaped, is generally very low and the median is somewhere around 20 parts per million. In the riverside area, there was a very large variation in soil lead and it's really unpredictable from sample to sample, but what is clear is that you can easily change the soil lead just by applying landscaping to -- to the soil. And there are a number of cities that are doing this now; New

York City has a really interesting project. Philadelphia, as well; of course, in New Orleans we -- we're doing a lot of parks and there are other cities involved. So thank you very much. Next, please.

I think I just have -- well a conclusion. Current policies do not address legacy soil lead and this is especially true in lead contaminated cities and that's, unfortunately, the big cities are where we're seeing problems and that was addressed, in fact, by Clair Patterson back in 1980 into -- actually Sayer also noted the same thing.

Thank you very much for your attention and for the opportunity to give a brief and hopefully spectacular presentation on the topic of lead in the environment and the need for lead -- soil lead free or low lead soil at a community basis. Are there any questions, comments?

MR. AMMON: We'll open it up. Paul, do you have a question for Dr. Mielke?

DR. ALLWOOD: Yes, I do. I do. Thank you for your presentation, Dr. Mielke. Just, you know, looking at your concluding comments here, you -- one of them kind of caught my attention. Previous lead deposits remobilizes from soil to air and drifts into tracked homes. And then, you know, as you're thinking about the landscaping project I just kind of wondered well, it didn't -- I mean, unless

you explained -- I mean, if you said this and I didn't catch it I apologize, but -- but it -- does that include removing any -- any, you know, contaminated soil deposits before new soil is brought in or is it just like a covering that is applied?

DR. MIELKE: In New Orleans we just cover. The city is low, people realize bringing clean soil and putting a new layer is very beneficial to the low city. Public housing has raise -- been razed, torn down and then they put the clean soil and raised it and they're very clean. Public housing now has very low lead levels around the -- the foundation -- in the -- on the whole project. As far as I -- I've looked at the data and the blood lead levels of the children living in those projects are really low and they've come down a lot over...

DR. ALLWOOD: Okay. Thanks. But just in follow-up, do you have any -- do you have any concerns about sort of a, you know, -- I'm sorry I turned off my camera, I didn't realize it was off -- any concerns about sort of, you know, longer term, you know, potentials for some of the -- the, you know, contaminated soil to be kind of, you know, come to the surface as people do additional, you know, modifications to those remediated plots?

DR. MIELKE: We pay close attention to that. Really clean -- player is that are childcare centers, for

example, we put in geotextile before we put clean soil on, and we put about six inches of clean soil on top, and so they -- they remain very, very low on lead, and if it turns out children dig into this soil, they would run into the geotextile. It was orange geotextile and it's very, very noticeable. And that was -- that was a concern but, overall I don't -- I think that adding a clean layer of soil ultimately results in much lower lead levels.

The soil that we're using contains less than 10 micrograms per -- or no, sorry -- less than 10 parts per million lead and so if you have 400 parts per million on the -- in the soil, 10 part per million soil on the surface of that would very rapidly -- it might mix, but it would not -- it'd be a much lower number. And we tested that over ten years and we found that the soils that were covered did not have higher lead levels afterwards.

DR. ALLWOOD: Okay. Thank you so much. I do have another question, but, you know, I'll pause here and then see if anyone else wants to raise a question or offer a comment.

MR. AMMON: I have a quick one, but I'll let you go first, Paul.

DR. ALLWOOD: Yeah. So Howard, I was just kind of wondering, you know, I think you mentioned that -- that your -- your -- your -- your influence, you know, helped

university -- helped convince the university to -- to do this work. Is there any plan, you know, there's one picture you showed where there are two seeming like relatively close areas, you know, one where there's that one that has been remediated. Is there any plans to kind of expand this to other areas on the campus or, you know, beyond the campus?

DR. MIELKE: Yeah, beyond the campuses. If -- the three way is beyond the campus. Well, you know, when we found higher lead levels on one side, we -- I am working closely with the Lafitte parkway -- or greenway is what they call it, Lafitte Greenway, and they are going to be landscaped on the other side of the freeway. I'm not going to be in New Orleans much longer and I'm moving to another city so maybe I'll have a chance to expand my projects in Seattle, which is a city that needs a lot of help, as well.

DR. ALLWOOD: Thank you very much.

MR. AMMON: So you know Dr. Mielke, I don't think you remember, the last time I saw you was the last event in -- in New Orleans was March 2020. We were doing four homes with Lowe's and you were there at the community event with us. So it's good to see you.

DR. MIELKE: Yep.

MR. AMMON: One -- one question -- I know we only

have three minutes, but is there -- and -- and a lot of this has been built upon research, you know, that we've learned is, you know, is there, you know, a specific question you'd still like asked that there is a research need for, you know, that, you know, you can ask for funding from us?

DR. MIELKE: Well, the -- the, of course, the specific question would be, I -- we need to find a way to reduce the amount of acceptable lead. Many places have paid attention to that question. California uses 80. Norway uses 60, Denmark uses 20 parts per million is safe for children, and so we have to double down on that because 400 is -- everything that we've looked at it when we start paying attention to the amount of lead in the soil, within a community and blood lead levels of the children living in the same community, we're coming up with 50 parts per million as being relatively safe. So that question needs to be more fully explored. Seattle probably is a good place to do it.

MR. AMMON: Noted. Well, is there any other questions? We have about a minute before we take a ten-minute break. I don't see any. We can add two minutes to our break.

DR. MIELKE: I see a question.

MR. AMMON: I'm going to see if that can get moved

over to one of us.

DR. MIELKE: Somebody has a question, but they can't seem to get their hand recognized.

DR. RUCKART: Howard, that's because the chat and the questions and discussion is for the LEPAC members.

DR. MIELKE: Oh, okay.

DR. RUCKART: And then that was submitted by an audience member.

MR. AMMON: Well, we can get that sent to us and we can probably address it at a later time. But thank you again, Dr. Mielke, great presentation, and we are up on a break. So let's go ahead and take that now and see everybody back in a short 10 minutes; at 2:40 we will reconvene, 2:40. Thank you.

(Break, 2:30 till 2:40 p.m.)

MR. AMMON: All right. Welcome back, everybody. As I think I've said this probably a billion times that I'm always thinking about our work and how it impacts our local grantees and I'm always asking the question to our grantees, what can we do to make your job easier, since at the end of the day we know that all work happens at the local level in terms of really operational implementation. And I'm not sure if in many ways the federal structure makes it easy for locals to both navigate and implement the various sources of funding and, of course, the various

sets of requirements that come with that funding. At a time now when there is a lot of money available to be used at the local level, you know, I think it is a good learning lesson for us to hear about navigating all of those different sources of funding and how it can be used in terms of -- or how it can be aligned, essentially, at the local level to get the outcomes that we -- that we all desire.

And so this afternoon we're starting out with the presentation about that and so I always like having our (indiscernible) on. It's great to see you all. I know we're very much looking forward to hearing about your work and how you're able to accomplish this, so I will turn it over to Carin.

NAVIGATING MULTIPLE FUNDING STREAMS AT THE LOCAL LEVEL

MS. SPEIDEL: Awesome. Thank you Matt, so much. And I just want to introduce my colleagues -- I'm a line -- and it looks like we're here in -- in duplicate all under Carin Speidel, but I promise you that these are not doppelgangers. These are my wonderful colleagues. First person I can see on here is Courtney Wisinski, and she's going to be helping with the presentation. Sonia Frick, who is our Lead Safe Home Unit manager is on, as well, kind of splitting up the presentation so you get to hear from all of us. And then last but not least, Nicole Wyse

with the City of Detroit Deputy Director for the Housing Revitalization Department to get that perspective from a -- a -- the local perspective. So thank you, Matt, and Paul Diegelman and others for the invitation to present. We're excited to share kind of our -- our lessons learned in this approach to administer multiple funding sources for various lead services.

So I'm going to go ahead and jump right into the conversation, or I'm sorry the presentation, so if we can move to the next slide.

So we always like to start on this little -- this little guy on the -- on the screen there is a little one that we were able to assist through our program and I think this really puts into perspective and kind of brings us back to level ground of why we're doing what we're doing. This was a real family and a real home, and you can see, he was expecting a sibling soon and so we were just really proud to be able to provide these services and -- and you can -- you could read his mom's testimony there. Next slide, please.

So before we get into kind of what we're doing with the multiple funding sources and how we're doing it and what we've identified as best practices, I wanted to give just a little bit of background on our organization. We have in the last year or so been going through a massive

reorganization with our Department of Health and Human Services here in Michigan. And so the lead services section, which is the section that I manage, has really kind of taken on the aspect as it -- as it is pointed out in the name, around the services side of lead exposure and lead poisoning prevention. And so we have -- we have absorbed a big portion of our Childhood Lead Poisoning Prevention Program so thanks to CDC folks on the call who have been supporting that program here in Michigan for many, many years. We're excited, it's a complex program and we're learning each day, but really putting some fantastic initiatives into place to help families impacted by lead poisoning here and in this state. Our Local Lead Services Development Unit, that is Courtney's unit, and so I'll let her talk a little bit more about that in just a minute. But the -- the primary take-away from that is one of the big programs that's administered out of Courtney's unit and will be a big topic of discussion this afternoon is the community development program, and that is, you heard earlier from Dr. Mona Hanna-Attisha and Ruth Ann made references as well, that’s taking a portion of the Medicaid CHIP, or Child Health Insurance Program, dollars and making them available -- available to local communities to run their own lead hazard control program. So what we've kind of modeled, what Matt and his team at

HUD have been doing for years and years at a state level, at a local level to implement. The Lead Safe Home Unit -- so Sonia, I'm not sure if Sonia is on, or will be on, but she is the manager of our Lead Safe Home Principal Unit. We, just in the last several weeks, have actually split her unit into two because it is growing so rapidly and so we have kind of taken a geographic approach to, you know, to those services and so really thinking about the local lead services side is really about, you know, providing support to local communities to administer these programs, whereas the lead safe home units are really about the direct services where we're -- we're providing those services to the home right out of our central office. Next slide, please.

We have also one additional changes that we have split out the regulatory and compliance side of lead into a sister section within our division. And so we have now this certification and enforcement unit, which is functioning under EPA dollars and that -- and I think most folks are familiar with that, but that's, you know, that, the authorized entity in Michigan to be able to do the -- oversee the training curriculum and the certification and compliance of lead professionals. In addition, one thing that we started to build and -- and this continues on a daily basis is our Quality Assurance Unit. And you'll be

hearing a little bit more about this, as well, and why we think this is sort of having a quality assurance piece is so important in the work that we do. Next slide, please.

I just wanted to provide our mission statement here, I think this kind of summarizes what we just talked about and what we do and why we do it. Probably very similar to many other states across the nation. Next slide.

So where are we now? So Michigan is as we've been talking about here -- been hearing about all day has been going through lots and lots of changes and sort of the silver lining of all that's happened over the last several years is that if we finally -- lead has finally gotten the attention that it really has deserved for so long. And, you know, thankful to Medicaid and CMS, in particular in our state Medicaid office for the allocation of the CHIP dollars. Starting in fiscal year '17 Michigan was able to obtain about $24 million a year for lead abatement specifically and I think we were -- there's an argument back and forth, but I think Michigan was the first in the nation to actually acquire and to implement that. So really proud of that that's been able -- we've been able to really step up and help more families across the state with that -- with that money. And then starting in fiscal year 2014 our legislature appropriated state general fund dollars in a very small amount; while we were thankful for

it, it helped us to secure our HUD grants through Matt's office and things are going forward. That funding has grown significantly over the past several years and, more recently, just -- just this calendar year with the work -- if you've been following the news in that -- the city of Benton Harbor. We were able to get an appropriation there to really expand the work greatly that we're doing and it's really -- it's really kind of -- what we're going to be doing in Benton Harbor is really what we've been trying to do everywhere for so long, and so happy to provide more details about that later. So right now -- well, I should say before the -- before the general fund dollars that were appropriated for the -- for the work in the city of Benton Harbor we were targeting between five and 600 homes annually as a state program and that includes Courtney's Community Development Program and Sonia's the Lead Safe Home Unit work. With the addition of the general fund for Benton Harbor work we're -- we're going to be probably more -- the goal being more between eight and 900 units, a year. So that's a lot when, you know, back in the early 2000s I think we were doing between 50 and 100 units a year, it's been substantial. So we -- we want to kind of let you know and share with you all what we are doing and how we're doing it, best practices, so I'm going to pass it to Courtney to kind of get into the nitty gritty of all

the programs that we're providing.

MS. WISINSKI: Oh, great. Thank you. Welcome. I'm glad to be here. I wasn't here all day so I -- I missed some of the presentations, I apologize for that. But as Carin was saying we have expanded exponentially over the -- the last five, six years. But we are still working on our primary environmental services. We want to find that the lead hazards and as, you know, here in Michigan and probably elsewhere in the country, as well, a lot of focus has gone on to water, but we want to make sure that we are also focusing on the primary exposure pathways which is dust, paint, soil and then sometimes personal items in those elevated blood lead level cases.

And then also looking at fixing the lead hazards in the past because our funding was somewhat limited we implemented as many interim controls as we could, but moving towards Medicaid and the CHIP funds, looking more at permanent abatement in as, you know, many cases that's feasible. We also added with our Medicaid funding what we call our family support services, so we have family service coordinators that help to find other resources, wrap-around resources, for those families to make sure that we can provide lead hazard control and that it's effective and efficient.

One of the big roles that they -- that they fill is

relocation during abatement. We now have funding to provide relocation during abatement, generally in hotels or motels in certain cities, sometimes in other lead safe housing. Next slide, please.

So in 2000 -- January 2017, is when the lead services section and our state Medicaid office started working to develop the state plan amendment to include lead hazard control services. With that we really wanted to be -- think about it on a holistic approach. In the past we had provided direct service sometimes we call central -- central office service which is -- that would be a Lead Safe Homes Program that encompasses our own staff and contracts out contractors. They -- that -- that comes right out of our office, and what that allows us to do is develop a really high level of quality assurance to make sure we're kind of what our -- our director always says is the gold standard for lead hazard control.

In addition Carin mentioned we're currently goal of like, five to 600 -- or historically five to 600 homes per year, and many of that three to 400 comes directly out of Lead Safe Home. They are a somewhat of a machine and they're very good at it. But what we also wanted to do is kind of we're thinking from our experience, our long-term experience with HUD, that just like providing -- HUD providing on a local level, maybe at a state level, we

wanted to be able to do that too so that's when we developed the Community Development Program and looking at where those high risk areas are, where there's capacity from -- from a local agency to -- to want to do the work, as well as develop different models to implement that work. For example, we've got some grantees that do external crews, so that'd be similar to I think what most people do in lead hazard control is we hire out certified contractors. But we have been working with a lot of our community action agencies that provide other services that's internal; for example, weatherization, and so what they've done is they've modified their internal crews to also provide that -- that lead hazard control. So that comes directly out of their office which is -- makes more sense in some of our grantee areas, especially in our more rural areas, that they have their own crews and they can provide their own quality control.

As we know, the reason we want to -- to provide these local -- these local dollars is because those communities know their needs the best. They can then develop local control, they have the trust of many partners in the area already, and then of course you know looking to have local infrastructure and/or neighborhood civilization. Next slide, please.

So we'll talk a little bit about the different

service provisions we have. We talked a little bit about the Community Development Program. That program is 100 percent CHIP funded and then what we do is we grant those funds to local agencies. We do that through a -- an RFP. Sometimes we direct solicit, knowing that we -- we need to provide services there; for example, Benton Harbor; for example, the Upper Peninsula. It can be a competitive request for proposal and/or if you see the need to do the direct solicit.

One of the things we really wanted to make sure and knew would be -- be, you know, important for long-term sustainability was providing technical assistance to those communities. So we have two program coordinators that have been assigned different grantees and they provide direct technical assistance so they're pretty much on call 24 hours a day. We have weekly meetings with the grantees to ensure any barriers are coming across is -- is addressed right away.

One of the things to consider with a grantee is, is there a capacity limit? So grantees on average can do, can perform about 30 to 40 units for abatement per year, depending on which model is used. So there's a little bit of a capacity control there which, you know, just reiterates our need for Lead Safe Home to be able to provide that statewide response.

The next program is our Lead in Water Program which kind of derived out of our -- our CHIP funds, knowing that we were working predominantly in Flint and Detroit at that time, developing these community development grantees, but we, as a department, needed to develop water sampling protocol that was much more health-based than what EPA or our -- our Department of Environment and -- Great Lakes and Environment. So we worked with our toxicologists, we worked with DEQ at the time and with EPA to develop this model for -- for water sampling. So the program kind of has -- has grown from there with now what we are -- are calling our Lead Action Level Exceedance Community. So anytime we have -- EPA has designated a community with an action level of exceedance of lead in their water, we can provide lead inspection services to pre-'78 homes with children under 19. This is fully grant funded so it's a -- it's a free program for all of that investigation services. And it's -- it's funded out of our general fund dollars. More of a primary prevention effort because we are only providing the investigation and education, not necessarily abatement in these communities. Next slide, please.

Then our -- our model program, our Lead Safe Home Program, has multiple funding sources which makes their -- their financing component somewhat tricky. But we have

staff that are fantastic and make sure that every dollar is accounted for and -- and accurately appropriated, but they -- Lead Safe Home does have CHIP funds, of course, they have the long-standing -- our foundational funding for HUD and then several different general fund sources. And again, mentioning these are internal staff and teams that oversee the investigations in lead abatement.

We refer to the teams as regional field consultants so generally placed in different areas of the state so they can focus on those areas and -- and be consistent with their -- their partnerships and other -- other amenities in the area. The intake coordinators are the -- the folks in the office that are processing all of the applications that are coming into the office. And just to give an idea, most of those that work in this program, if we're doing five to 600 homes a year, we're processing 1000 to 1500 applications a year. So it's a really big job and they're also distributed regionally. And the family services coordinators, currently we have two that service Flint and Detroit, looking to maybe expand that into Benton Harbor or some others, high risk identified areas.

Outside of -- so mostly Lead Safe Home has targeted areas through HUD and through CHIP, but then they also have the ability to provide any -- to provide these

services to any EBL statewide. So they don't have to follow the HUD guidelines or the CHIP guidelines as long as they have an EBL. Most of the team will work to facilitate environmental services so they're -- they're handling -- maybe they're doing investigations, maybe we're hiring out investigations, they're developing the scope of work, overseeing those contractors all the way through the end through clearance. So that is a really, again, our foundational program we've learned a lot from them to develop these other programs.

Carin, maybe I'll pass the Critical Engagement Outreach Project back to you for a minute.

MS. SPEIDEL: Sure. Yeah. So this -- this next piece I'll go through quickly is an engagement piece that we -- was really sort of like a new -- a new piece developed as part of the CHIP SPA dollars. And so what we identified in -- in Dr. Mona Hanna-Attisha -- I refer to some of this is -- is, you know, trying to find -- trying to work with local community organizations in Flint to help us. We knew that as a state government agency that, you know, there was a lack of trust and so we wanted to work with local partners there to really engage the community and -- and let them know about these great services in that. And so what we did was develop a project, what we call our Engagement Outreach Project with

Genesee Health System, which is a wraparound service agency in -- in Flint and Genesee County, I believe, and really looking to their team of community health workers, where the community health workers really would -- would sort of work off of a list of, you know, all of the addresses that were -- had a Medicaid enrolled child or pregnant person in the home and really work with them to try to follow this very detailed engagement protocol to get them into the program. And so it's -- we've had a lot of success with that and as Dr. Mona mentioned, as well, we've also had great success in working with the -- the Flint Registry and the community referral platform so that when folks are signing up for the Registry and sort of, you know, selecting certain criterias they're filling that out and in and, you know, signing up for that. They get automatically referred through the Registry and the referral platform to our program for -- for the next steps to get these services. So we're just really grateful for all the community partners there and really just looking at, again, as Courtney has mentioned, just looking to local partners to really help us build a program knowing that they know their community best and how to engage residents. So next slide, please.

I'll -- I'll quickly just mention this, so we have a pilot program that we started a couple of years ago with

some funds that were passed to us from what was the DEQ at the time. These were state funds and what we decided to do was address the gap with those dollars which was licensed in-home childcares or daycares. And we knew that, you know, children at that time and this was -- this was pre-COVID, of course, were spending so much time, you know, within like daycares and childcare settings that we wanted to try to figure out if there was a way that we could engage -- we could engage that community to -- to also receive these services. And so that's an ongoing project and it's -- it is a piloted project so certain parts of the state only because it is limited funding.

So hopefully in, you know, the next year or so we'll have some -- some better outcomes to share with that -- or more final outcomes, I should say. The other -- the other piece which I have to give a shout out, I don't know if Ruth Ann is still on the line, but the Lead Poisoning Prevention Fund is something that Ruth Ann was really the igniting factor behind here, working with our department leadership and the governor's office and others to get a loan loss reserve program designed here. And so that we are super excited to announce that that is kicking off I believe May 18th is the go live date if everything falls into place. We're going to be working with an entity by the name of Michigan Saves to administer that fund. And

then on, you know, our programs are going to provide those technical support services, including the -- the lead inspections and the environmental investigations and -- and kind of technical guidance and spec writing and that kind of thing. So that's a -- that's really sort of like as we view it as a safety net program for residents of the state that may not qualify for another existing program as we've already talked about, then they can apply for this, this low interest loan program. Okay. Next slide, please.

I believe these are just some before and after photos coming up. Or maybe I skipped a slide. Did I skip a slide? I think I did; sorry about that. Workforce Initiatives, so we know we've -- we've kind of -- we continue to kind of beat this -- this dead horse of, you know, we just don't have in Michigan, but I know it's a national issue. We continue to have workforce shortages, especially within lead abatement, but all trades and so we've put into place some -- some actions we feel are helping, but certainly not the -- the overall solution. We're really trying to figure out what that -- the big ticket idea is to really get us through and help us to rebuild workforce, but some of the things that we've done is, you know, our scholarship program has been long-standing, you know, providing scholarships to folks

wanting to get trained in lead abatement or the lead inspection process. We are doing an incentive program where we're rewarding our lead abatement contractors who are successfully completing projects and rewarding them with a financial or monetary incentive so that they can take that and then go purchase tools or supplies, or, you know, new, you know, new equipment for their crews or whatever it happens to be, they want to give their crew a bonus, they -- as long as it's a work-related expense, they can use that incentive for that. So we've had some success with that. We've done a workforce campaign last year, we're going to be pushing that out again this summer. We have a -- an individual who was a former contractor that is employed with us that actually will go out with new lead abatement contractors and kind of do on-the-job training with no risk of, you know, enforcement or anything like that. Really just can talk contractor to contractor, show them how to be successful as a -- as a lead abatement firm.

And then we've got collaboration with other entities happening as well, other organizations. And then our, you know, our CLPPP Program, I can't -- I know this -- this presentation is more focused on the environmental side, but just want to kind of reference all the -- the great work that continues to happen there and excited to

announce that, as of May 1st Michigan has officially adopted the new blood lead reference value and so we're really excited about that. That's been updated in all of our policies for the most part, I think there's still a couple lingering ones that will follow, but we -- we have officially adopted and -- and are now referencing that new value. So thanks to CDC and everyone who is a part of that.

The next slide is -- these are the photos -- just -- I -- you've probably all seen these before, but a couple of before and after photos. I believe this was a Flint property and then the next one was a little town in northern Michigan and that -- that home used to be a former, as I understand it, it was some kind of a rail stop home and so, yeah, just wanted to show those as they are really telling of the story.

Let's see here. Moving along -- let's see, Courtney, is this one you?

MS. WISINSKI: Yeah. I can talk about this, Carin.

MS. SPEIDEL: Okay, perfect.

MS. WISINSKI: So -- so one thing is having multiple funding sources makes it very complex internally, but more importantly, when we are working with local partners trying to not -- trying to make it as easy as possible for them so that they're not getting caught up in -- well,

what funding source? And what do I qualify for? And what's the eligibility? So we really try to work with our outreach folks -- folks to say, just get them the application, send them to us, we'll figure out which funding source they fall into, but you can see here there's different services based on the different funding sources. So we have the investigation, of course, the LIRA indoor environmental investigation that all of the -- all of the funding sources provide. But I mentioned a little bit earlier we provide the investigation, but not in all cases can we provide the abatement based on funding, and that one is that Lead in Water Program. So sometimes we can refer over to Lead Safe Home in those cases, but sometimes they don't fall with any funding source so we provide education and we'll provide some cleaning products and we'll go over the report so that we can really ensure that -- that the families are well aware.

Then water sampling, of course, is relatively new since our CHIP funding. So we provide water sampling using our and DHHS water sampling protocol in all of the funding sources, with the exception of HUD. Within that water sampling, we can -- we can also do abatement based on sample results. So in 2014 is when the Safe Drinking Water Act reduced the amount of lead allowed in a

(indiscernible) surface of a faucet from 8 percent down to .25 percent. So any home we go into and we do water sampling in, we can provide -- we will replace the faucets that are pre-2014 and/or if we were to get exceedance in the sample result outside of our HUD funds and outside of our general funds for lead in water because we don't provide abatement services there. And then depending on the sampling protocol, and this is why we -- we work to make it a lot more health-based, we do a lot of sequential samples so that we can determine if there's an exceedance in that home where in the plumbing system is it. So if we identify an exceedance in a service line, we can replace the service line. And then if we identify any exceedance within the internal plumbing we can replace that, as well, in addition to the faucets.

If we go to the next slide, kind of shows where that coverage area for these different lead services are. So in -- in the white lined that -- that's kind of our Lead Prevention Fund Program; they can provide services to anybody that qualifies statewide. It also allows us if it's -- if it's named a Lead Action Level Exceedance area, we can provide those services statewide. And then the Lead Safe Home Program can provide response to any EBL statewide so that's where if there's not a color, that means we are still working statewide as a response, it'll

just depend on, you know, the criteria in those cases. You can see here the local grantee program which we mentioned. And we've got Nicole -- Nicole was one of our very first grantees, so we worked with the city of Detroit and city of Grand Rapids and Muskegon were our first grantees so they really helped us develop this program, but you can see where on this map, it shows that we're in eight -- nine different communities and we just added Benton Harbor so that puts us at ten, but the different communities depend on the need. So for example, it's one grantee up in the thumb of Michigan there, including the Bay County, so that's a weatherization program or community -- community action agency that provides services to all of that area. They're one that has the internal contractor model so they have their own crews that go out and do the investigation, or I'm sorry, the abatement and hire out the investigation.

We have another similar -- the similar model down in Lenawee in Hillsdale which is in the south side of Michigan which is also relatively rural. Then our other grantees, I'm sorry, the -- the UP which we now just expanded to all of the UP is also a community action agency, but they do hire out their -- their abatement services. So even though we have community action agencies they still have -- can have different models and

we want to be flexible so they can be successful. The other grantees, Muskegon, Grand Rapids, Battle Creek, Detroit, and now we have Wayne County Health Department, provide services, mostly to those cities, but we allow them to work outside and within their county, as well.

And then you can see there in southwest Michigan in the -- the somewhat light blue, that's the Lead Safe Home Daycare Program. So they had minimal amount of funding, they wanted to make sure that they could focus and be successful so they're working in that area over there. And then you can kind of see the little bitty dark blue dots, that's our HUD -- our HUD target areas. I think we initially started with eight HUD target areas, but fortunately two of those -- two -- two of those target areas actually receive their own HUD grant now so we added one and we're down to six at this point and that's where we can focus our HUD funding. And then the -- oh, the hashtag is the pending grantee area, but at the time of this map we -- we've -- we've secured those areas. So Wayne County, as well as every county in the UP. Next slide, please.

Back to you, Carin.

MS. SPEIDEL: Sure, yeah. So I'm -- I'm going to click quickly through this, I want to make sure we give Nicole time to -- to cover her slides. I think we're --

so where are we going is, you know, we saw, like many states have it, we experienced pretty extensive decrease -- our drop in blood lead testing in the state and so we're working with our CLPPP team and -- and local partners to be able to -- to get that back up to where it was and -- and keep it going to even higher levels.

Workforce Development. We've talked about that, we continue to try to -- try to look at new initiatives to support that and to build extension of services. We talked about the Lead Prevention Fund. We're trying to -- the plan is later this calendar year when things are a bit more settled is to be able to start to build our what we call our libel program, you know, and that's a program where we can hopefully offer an environmental investigation or lead inspection for every home where there is an EBL child, sort of have an engagement protocol with that so that, you know, every family regardless of, you know, where they live or their -- their socioeconomic background has access to the -- to the service which is at a base level that's environmental investigation.

So more to come on that later. We just -- we just released an online module for home visitors so looking at folks like foster care, child protective services, it's a -- it's a tool where they can take a brief training, you know, and be able to use those skills that they learned in

that online training to be able to as they go into homes in different situations, they can say gosh, there's kids here, this looks like an older home, what do we, where do we send this family for lead services? And so that's been really exciting.

And then quality assurance tools and programs, I think we'll talk a bit about just a minute here. I think we can move to the next slide and I'll keep going quickly, watching the clock here.

So lessons learned from multiple funding source implementation is -- Courtney alluded to this. Understanding the requirements, the similarities, the differences between the various funding sources, and what -- we'll -- we'll better outline that here in just one second, which I think will be the takeaway for today. But know where the funding policies lie in order of precedence, right, so that, you know, we're not -- we're not misdirecting funds or anything like that. Develop realistic work plans, in timelines for implementation, that's a big -- that's a big piece of it. I know a lot of this is probably -- goes without saying, but they are things that we've had to call out specifically as part of, you know, implementing a new funding source. Plan for workforce shortages, both staffing and external vendors and contractors and partners. Look to local partners to

help identify gaps or to -- to gain more community engagement. Clear programmatic policy and procedures. Quality assurance processes and controls. So that's a piece as I mentioned, we have a whole unit that's dedicated to that to make sure that we in Michigan can say we -- we can set the gold standard, we know that we have high quality work, we know that it's going to last and reducing errors in data and that kind of thing and so that's really -- I'm happy to answer more questions about that if we have time. And I think we'll move to the next slide.

We have a central intake process so that's a big -- that's a big takeaway. If you have multiple funding sources, that is -- spending the time to build a central intake whereas all requests for -- for any service are coming into one central place and then that central process then determines where does it go, what does that particular household receive. That's been huge and that's been something we just -- we just kicked off in the last several months. But especially with the Lead Prevention Fund it makes it much easier to make sure that not -- none of the -- none of the requests are falling through the cracks. Make sure your team understands why we're doing it and why the change in the growth is so critical and so important to get to the end goal of eliminating lead

exposure.

I'm trying to -- oh, we developed a data application, that's a big one. Having a repository for all of this data, so now it's -- it's -- it's lead in water results, it's our dust samples, it's our project information, the prop -- the occupant information, we now have a central place for that so that we can better make those connections between the health side, the CLPPP side, the blood lead test side, and the environmental side and the actions happening there. And I think I'm going to keep on moving here. The next slide, please.

Funding comparison, I know we don't have time to go through all of this. What we tried to do was a -- almost like a crosswalk of looking at the -- the funding sources that we have and how -- where they have similarities, where they have differences. And where -- where it really makes an impact on the programs themselves. So I think one -- one probably pretty obvious point is water, right? Courtney mentioned this that, you know, not all of our funding sources include the -- the water sampling requirement. And so, you know, getting to that might be a point where we can kind of bring some level ground to -- to make sure that drink -- lead in drinking water is -- is, you know, listed in a source of exposure in that so that we can assess and we can address if needed. You know

the program eligibility, we've really built this framework so that, you know, depending on sort of the tier and the -- the socioeconomic background of a particular household that we -- we, ultimately -- we're getting -- we're trying to get to the point that regardless of what that background is that we have some kind of service that we can provide. I -- I think the application processing, what we found with the Medicaid CHIP is that the application process is very streamlined, they just -- we just need basic occupant information and to know whether or not that someone in that household is enrolled in a Medicaid health plan. That makes it really easy, it gets away with the income documentation and all of that. And we've talked a bit about services provided. If we can go to the next slide, please.

The primary prevention level, so this is what Courtney talked about where we have specific, you know, under the different grants or dollars that we have, we have you know, targeted communities where we can do primary prevention and then we've got sort of everything else where, you know, before the Lead Prevention Fund was here, you know, there had to be a lead poisoned child in the home in order for us to provide services. And so really looking at how can we better align all of the funding sources to, you know, to -- to get more residents

in the program. So we've talked about water, the cost restrictions is a big one. Medicaid CHIP currently -- now, I can't speak for the other states, I don't know what other states have as cost caps, but I know here in Michigan we don't have a cost cap on abatement projects, and we know that the costs have gone up because of COVID, because of lack of workforce, supply demand, materials costs and so that's been, you know, having funds that we can rely on to say gosh, this is a really expensive project we, you know, we need to, you know, it's going to cost more than maybe 20,000, right, so that kind of breaks that down. The reporting requirements and then the output, right, so obviously more money that's appropriated the more that you can do with that. And so that kind of just outlines that. Next slide, please.

So here's -- here's the takeaway. The funding comparison, these are the big differences, is a mechanism to secure the funding is, you know, for example, Matt with your group, we -- we write a grant proposal every few years and we apply it that way. With the Medicaid dollars, those are dollars that are just sort of re-given each year, so that's a big difference. General fund, the same thing; sometimes we have to advocate for it. The eligibility requirements, similar among funding sources but, again, we built that framework to be able to handle

more -- more requests for help across the state. The application documentation, we talked about that. Cost maximums, the coverage area of each of those. The extent of work provided, so Matt, maybe you don't want me to say this out loud. We -- with our -- with our -- our CMS dollars, our CHIP dollars, we've really gone the route of whenever possible to do what lead abatement work, because we know then that the likelihood of us having to come back to make those fixes or repairs again is going to be less likely if we can put a more permanent mechanism in place. And there's always this fine balance with some of our other funding sources of cost -- cost effectiveness versus, you know, do -- trying to do full abatement. So that's something that has been really different between the funding sources.

The public notice/environmental review process, that's I think that's primarily only required for our HUD dollars, although we do have to do a public notice now with -- when we have changes to the state plan amendment for CHIP. And then the level of technical assistance, so just looking, again, that has a lot to do with sort of the quality assurance process that we're building and looking to; for example, Courtney's team with the community development grantees, she has staff where the communities can call and say, hey, we have this project, will you put

your coat on and come out, put your boots on and come out and take a look at it and advise us on what to do, so that's been -- that's also a takeaway is -- is trying to get to level ground of, you know, what the funding source is and who is providing that technical assistance and quality assurance on the funding.

I want to pass to Nicole, I feel like I, yeah, sorry Nicole. I'm trying to talk as fast as possible, over to you.

MS. WYSE: Okay. Thank you so much, Carin. Thank you for inviting me on, you know, we enjoy working with you and your team on all things lead for the city of Detroit so, again, Nicole Wyse. I'm an associate director at HRD, which is the Housing and Revitalization Department for the city of Detroit and I oversee the Community Development Division which includes our home repair unit which then includes our Detroit Lead Safe Housing Program. So I will try to get through this quickly, but Carin really just talked about all of the same things that I'm going to talk about, but I'm going to give you more of a perspective from the local grantee side and kind of go into a little bit more details, very briefly, for this group.

So just some quick facts. It sounds like a lot of you already do work in Detroit so this may not be news to

you, but it does help kind of frame the picture for some of the recommendations that we've had based on our experience with different funding -- different funding sources for our program. So, you know, we've got about 267,000 occupied single family units in the city. Detroit is full of single family units, 48 percent of which are owner occupied. We've got pretty old housing stock, you can see 89 percent prior to 1979 and 29 percent prior to 1940. A lot of the housing stock isn't -- requires some critical repair, has critical repair needs and then you'll also see just comparatively to the statewide average for children who test with the blood level of 5 micrograms high -- or higher, Detroit is -- is double that amount. And also just for reference, about 78 percent of Detroit children are currently insured by Medicaid and then another 57 percent are estimated to receive SNAP or food -- food assistance benefits and I'll explain why that's important. We can go to the next slide, please.

So just so you all have a high level understanding of what type of funding the city receives directly, there is other funding through some program partners in the city that also address lead and healthy housing. HRD specifically has of course, participates in the CHIP program and you can see that's on an annual basis, again, an annual allocation. And then we have funding from -- a

lot of funding from HUD that's a lot of where we fund most of our lead abatement projects and that's through the Office of Lead Hazard Control and Healthy Homes. But you'll also see I listed that we -- we have CPD on here, the Community Planning Division, because 95 percent of our units who go through these programs receive CDBG, in addition to the funds that come from the Office of Lead Hazard Control and that's important because it triggers some additional eligibility requirements for the city that we'll talk about in the next slide. But there's approximately 22 million right now in funding for lead abatement programs at HRD and this just kind of gives you an idea of period of performance and how many units we anticipate to -- to complete with this funding. Next slide, please.

All right. So the fun stuff. So one of the things that I think Carin has touched on all of this, for us is, you know, aligning federal requirements for these programs not -- it doesn't only just provide an administrative burden for grantees to have different requirements, but it actually -- some of the stuff deters some of our applicants from applying to programs. And so some of the recommendations that, you know, we've talked about internally or just how to -- how -- what does it look like to allow applicants who are enrolled -- already enrolled

in federal assistance programs, such as Medicaid and SNAP, to automatically qualify for lead abatement assistance, no matter which federal agency is providing the funding, and that is super important. And I gave you those numbers of Detroit children who are getting Medicaid and SNAP right now, and currently because, again, 95 percent of our projects are -- are touched with community development block grant dollars, we have to request a ton of paperwork to income verify applicants and so that deters people who want to apply for the program because we have to demonstrate that they're at 80 percent of the area median income or below. Examples are just bank statements, employment verification, W2s, tax returns, things like -- things of that nature which some people just don't have access to, it just becomes a burden and they decide to just bow out of the program and we know how important these resources are to get to our folks.

The other option too is I love Healthy Homes funding cause that helps, but the reason why we use so many -- so much CDBGs, one for match requirements, but also two, because of the age of the housing stock in Detroit, when we go into the homes we are dealing with not just lead but a lot of people who need a new roof and need a furnace, their house is not livable; even if we were to do the lead work, their house still would not be livable and so a lot

of our CDBG funding and our Healthy Homes funding that we get right now currently from HUD and from the state now, we use that to address those issues. And so increasing -- or reducing the need for CDGB and maybe increasing Healthy Homes funding or similar funding really does help to assist the burden of addressing those non-lead repairs that are essential to maintaining the integrity of the lead investment and then also making sure that we keep people in their homes. Without these funds, HRD would cancel a large portion of their applicants due to existing housing conditions.

The other thing, again, we've touched on this, but just allowing for lead in water testing remediation across all programs so that there's more of a comprehensive approach. I've heard a lot of folks on presentations previous to us talk about the soil, we're talking about lead -- lead-based paint, talking about water, and so really thinking across organizations and divisions of how that looks in a more comprehensive way so that when we're going into a unit, we're leaving with, you know, a full abatement.

The technical assistance, I just have to give Carin and her team an awesome hand clap because the technical assistance that the Community Development Division is providing, it's been amazing, and I think that increasing

technical assistance across all programs, even those around like workforce development, when it comes to training workers around lead safe housing practices, things of that nature would definitely help. You know, HRD could -- could have staff turnover and the amount of time it would take to retrain staff, to find staff who already know how to do these -- this type of work could be critical on whether the program would continue or not. So technical assistance is definitely very important to us and I -- I'm mostly a practitioner around HUD funds, so I put examples of like CDBG disaster recovery. They've got a huge technical assistance division. And then again, new grantees because I know as Director Ammon mentioned HUD has a huge amount of money in the last few years, and so you know, providing that technical assistance, I think people get really nervous around lead because they're afraid to make a mistake. And they're afraid to come into compliance issues. I know I've been one of those -- those people before so...

And then we talked about eliminating or increasing program unit maximums that align with our current construction market. Detroit was already high, the prices were already high for lead. With COVID that has definitely impacted us significantly and also our housing varies. So we have some pretty large historic homes in

the city of Detroit and they cost a lot to be able to do lead abatement. And so just considering that, as part of sort of how these programs can align. One thing I didn't put on here --

DR. ALLWOOD: Hi, Nicole. I'm sorry this is -- this this is Paul Allwood and I -- I hate to do this and I apologize profusely. It's just been a really interesting presentation. We're running a little long on time so could you -- you think you could possibly wrap up in the -- in the next like 30 seconds? Sorry about that.

MS. WYSE: Okay. No, that's okay. And my last point was just workforce development. Again, Carin and her team have touched on that, but providing additional training funds to get more contractors and more workforce who can do lead abatement is super crucial to continuing to move forward with these grants, especially with the amount of money coming through for lead abatement.

And Paul that's -- that's it so 30 seconds was great. So thank you guys so much for having me on.

DR. ALLWOOD: And -- and thank you to the three of you there, you know, there's so much in -- in your presentations that were, you know, very informative. So pleased to see that, you know, you are managing all these different funds and, you know, prioritizing activities that are definitely getting to residents who are most in

need. So thank you so much for that presentation and I'll turn it back to you Matt. The next topic.

MR. AMMON: Thank you, Paul. And it's my pleasure to turn it over to Dr. Ruckart to talk about policy approaches to improve childhood blood lead testing rates. Perri.

DISCUSSION ON POLICY APPROACHES TO IMPROVE CHILDHOOD BLOOD LEAD TESTING RATES

DR. RUCKART: Thank you. So I'm going to talk to you today about the work I did for my doctoral dissertation, and I conducted a study to evaluate the effectiveness of state level policies on childhood blood lead testing rates. Next slide, please.

So the goal of CDC's lead program is to prevent childhood lead exposure and lead-related health effects, and as a review primary prevention is defined as the removal of lead hazards in the environment before children are exposed and this is crucial to ensuring that children do not experience adverse health effects. However, in the absence of primary prevention, secondary prevention, such as conducting childhood blood lead testing is vital to eliminating continued exposures and for connecting children to needed environmental, medical, nutritional, behavioral and educational services to mitigate adverse health effects.

A recent study found that children under three years of age with blood lead levels at or above 4 micrograms per deciliter who were provided with early learning interventions had higher standardized test scores in math and English in third grade compared with similar children who did not receive interventions. And this underscores the importance of early identification of lead exposed children and connecting them to appropriate services. Next slide, please.

Although the American Academy of Pediatrics recommends that pediatricians be aware of local guidance and requirements for blood lead testing, a recent analysis found that public health agencies are not effectively communicating their testing policies to providers, and furthermore statutory requirements are not necessarily enforced. According to a 2017 report, 45 states and the District of Columbia state that they follow universal testing requirements of testing all Medicaid enrolled children for blood lead levels at one and two years of age or between two and six years of age if no record of previous tests. But despite these declarations, the report found that no states achieved 100 percent compliance with Medicaid or state requirements for testing children. And implementation of blood lead testing policies is inconsistent across the states and not closely

monitored. Due to the varied state of purchase and resulting testing rates, there is a need to determine which policies are more effective. Next slide.

So despite federal and state laws and mandating blood lead testing in children, providers may let their inherent biases dictate which children to test and therefore may misidentify a child who needs appropriate follow-up services. Studies that examine barriers to blood lead testing at the local level found that pediatricians were less likely to test if they believe that adverse health effects did not occur until levels of at least 10 micrograms per deciliter, they disagreed with their states testing recommendations, they served a low percentage of Medicaid enrolled patients and they believe their practice was in a low risk area, even if that was not the case.

A study done in New York showed that enacting a policy that required reporting of all blood lead tests regardless of level was effective at increasing testing rates from 16 percent to 30 percent in a one-year period. The current analysis helps address a gap in the literature by evaluating which policies are the most successful in influencing providers' testing decisions so that increases in testing rates can be seen on a larger scale. Next slide.

Because of lifelong effects on health and economics,

preventing lead exposure benefits both individuals and communities. Lead exposure has been associated with lost lifetime earnings ranging as high as $233 billion, productivity losses of approximately $267 million, lost tax revenue estimated at between $25- and $35 billion for each cohort of lead poisoned children, higher arrest rates with direct total costs estimated at $1.8 billion, and between $10- and $146 million for three years of special education for each cohort of lead exposed children. And these costs were from studies done a few years ago and they're likely higher now. Next slide.

One second. This study assessed the association between childhood blood lead testing rates and seven policies. A 2018 report, summarized by state, all childhood lead relating -- related policies that promote testing and they're shown here, metrics which are used to quantify improvements in healthcare quality and health system performance, and in the U.S. the most common is HEDIS, Health plan Employer Data and Information Set, and for lead it's the percentage of children age two who received a blood lead test by their second birthday. Incentives which use financial and nonfinancial rewards to motivate providers to strive for improvements in quality, efficiency and costs. Other managed care organization guidance, which includes using performance improvement

plans and value-based purchasing. And several states have developed provider guidelines for blood lead testing in children in addition to the federal Medicaid requirements, these can be mandatory or recommended. Data sharing and coordination across agencies and MCOs which can help to ensure that all at-risk children are identified so they can be tested. Mandatory reporting of data to state health departments can also help to ensure that providers are testing children at required ages. And another tactic that states can employ to encourage testing is requiring proof of tests as a condition for school enrollment, generally for pre-K or kindergarten. However, this requirement may not be enforced. Next slide, please.

And I used three datasets in this analysis. CDC surveillance data on the percentage of children less than six years of age whose blood lead levels were tested in 2017 and 2018. The 2018 report that summarized the state policies that promote blood lead testing in children and U.S. census data on potential confounders. And the potential confounders examined were housing built before 1980, black race, foreign born, education, a population less than six years of age with Medicaid coverage. Next slide, please.

And only 33 states were included in the primary analyses because complete testing data were available for

2017 and 2018 at the time the analyses were conducted and these states are shown in blue. Five additional states shown in green were included in a sensitivity analysis using only 2017 data which were obtained from the state's websites. 2018 data were unavailable. Next slide, please.

So the testing rates were assessed as a continuous dependent variable using linear regression to compute regression coefficients, 95 percent confidence intervals, and P values for unadjusted and adjusted models and collinearity among the potential risk factors was assessed to determine which variables to consider for including in the adjusted models. Confounding was evaluated using a 10 percent change in the estimate rule, and by this I mean if parameter estimates for testing rates differ by 10 percent or more in unadjusted and adjusted models for most of the policies, then the risk factor was included in the fully adjusted models. Results from this analysis were interpreted based on the magnitude of the point estimates and coherence. When considering other contextual factors, a non-statistically significant result may still provide useful information for public health action, and conversely, a statistically significant result may lack scientific and public health significance. Next slide, please.

The table shows the range and average percentages for the potential confounders included in the analysis. The percent of the population with at least a high school diploma was highly negatively correlated with the percent of the population less than six years of age with Medicaid coverage. Therefore, the educational variable was excluded from the fully adjusted models based on information in the literature which indicated that providers used the percentage of their population and rules in Medicaid to make testing decisions. The data did not show correlation between race and pre-1980 housing or between race and the population less than six years of age with Medicaid coverage. The number of policies range, per state, range from one to five, with an average of three per state. And the most frequent policy was provider guidelines in 35 states, followed by mandatory reporting of data to state health departments in 23 states. Metrics in 20 states and incentives in 14 states. Next slide.

The strongest unadjusted result was for requiring proof of testing for school enrollment, followed by MCO guidance and metrics, and these policies were also the strongest unadjusted results in the sensitivity analysis. Next slide, please.

In the fully adjusted models, metrics had the highest regression coefficient followed by other MCO guidance and

mandatory reporting to state health departments. Metrics was also strongest adjusted result and sensitivity analysis. Next slide, please.

So to summarize, requiring proof of testing for school enrollment was the strongest association with higher testing rates. Metrics and other MCO guidance were also associated with higher testing rates. Only five states in this analysis were reported to require proof of testing for school enrollment. Ten states were reported to use MCO guidance and 20 used metrics, so there is much room for expansion of these policies. Enacting and enforcing a policy that requires proof of blood lead testing for school enrollment is likely to overcome challenges, provider space, and the scheduled testing appointments when parents either decline or miss the appointments. This is because there will be a strong disincentive for parents who do not follow up. The identified best practices to increase testing rates are being shared with appropriate partners so actions can be taken to increase rates, and increased testing is likely to result in identifying more lead exposed children. When children are connected to appropriate interventions, they're more likely to exhibit academic readiness, spend less time in special education, graduate high school, and have reduced contact with the criminal justice system.

Next slide, please.

Additionally, the CDC lead program is undertaking several initiatives that we believe will have a positive impact on testing rates. In addition to lowering the blood lead reference value, these include pursuing improvements in our surveillance system and methods to improve data quality and reportability. We will soon implement a feed of blood lead surveillance data to the environmental health tracking portal, and we're training our funded programs on continuous improvement of surveillance and reporting processes. We've surveyed our funded programs to assess the impact of the pandemic and the lead care recalls and we'll share best practices and lessons learned and if the impact of COVID-19 continues, we plan to conduct follow-up studies to identify barriers to testing and possible solutions.

We plan to publish new online training modules which will be available on demand. They cover a variety of topics and are presented from over 20 subject matter experts in the field of lead poisoning prevention. We're also creating case vignettes based on real world increase that we've received to highlight lesser-known ways that children are exposed to lead. We're expanding outreach to the healthcare providers by creating ads from Netscape that encourage testing at-risk children. We're

collaborating with state Medicaid directors, proposing additions to Medicaid -- to the Medicaid course set for 2023, and engaging with pediatric health -- environmental health specialty units, poison control centers, nursing practitioners association and others. We're planning to release the LERI, the Lead Exposure Risk Index, later this year which is a new tool to help identify in that community risk for lead exposure. Next slide, please.

So this work is only possible through your help and guidance and although it's challenging, we remain optimistic that by working together we can overcome these challenges. I want to sincerely thank you all. Next slide, please.

I'd like to pose some questions for discussion. What can CDC do to encourage increased testing among providers? What can we do to address barriers to testing? And how should we promote results of this analysis?

MR. AMMON: We will return time to you, so please feel free to respond, anybody here, to any of the questions. Thank you very much for that presentation, Dr. Ruckart. Would anybody like to address any of the questions posed? This is obviously of -- of topic, including somebody mentioned today that there being a news article on the very topic. Paul?

DR. ALLWOOD: Thank you very much, Matt. And thank

you, Perri, for this very, very, you know, wonderful and enlightening presentation. You know, like Perri mentioned, you know, the there are several things that we're doing at CDC, you know, through our development -- developing training through our expanding partnerships and relationships with key -- key -- key partner groups, like, pediatricians and public health practitioners. You know, we're hoping to continue to rate, build awareness and to continue to keep the word out there that increasing testing is a high priority for the CDC and I'm sure it is for -- for many of you who practice in -- at the state and local level, as well. And, you know, along those lines, you know, during the latter part of last year when we were seeing some significant shortages in the availability of test kits for the point of care test -- testing devices. We -- we put out a health alert message that reminded everyone that, you know, we felt like there was enough testing capacity, and still do feel that way, in the traditional labs to -- to take up the demand and that a (indiscernible) sample could be -- could be taken and then analyzed using a higher complexity test, such as the ICPMS.

So, if anyone, you know, after this meeting have any thoughts, you know, with respect to these questions that Perri has posed, we'll be really very happy to hear from

you and you can certainly email us at the LEPAC mailbox and we'd be happy to receive your -- your comments and your advice.

WORKGROUP DISCUSSION

DR. ALLWOOD: The next part of the -- for the next part of the meeting, I would like to entertain a discussion on possible opportunities for establishing a new workgroup under LEPAC. And as all of you know that -- that are members, the -- the Charter governing LEPAC is quite broad and there are many potential topics that a workgroup could cover. However, depending upon the level of staffing support needed by LEPAC, we might only be able to support one workgroup at a time. Since we can, can most likely only have one workgroup, we'd like to make sure that -- that any workgroup that's proposed isn't duplicating work that's going on at other agencies or that's happening on other committees; for example, like the President's Task Force on Environmental Health Risks and Safety Risks to Children.

Workgroups are an opportunity for LEPAC to help drive policy change or actions to prevent or reduce lead exposure. For example, last October CDC lowered the blood lead reference value from 5 micrograms per deciliter to 3.5 micrograms per deciliter based in large part on LEPAC's blood lead reference value workgroup's review of

the evidence and making recommendations to the Secretary of Health and Human Services that the blood lead reference value be updated.

We are very grateful for your work and we would like to continue using your skills, knowledge and expertise to help us think about how to make -- make sure everyone has a fair and equitable opportunity to attain their highest health. We would like any proposed workgroup to also have a clear use case or clear deliverable in mind. And we would like also, you know, any workgroup that -- that is proposed to be clear, in terms of what recommendations are likely, and that would of course allow CDC to take actions, you know, in response to those recommendations as -- as approved by the, the HHS Secretary to further advance our efforts to prevent childhood lead poisoning. And then before I -- I invite our committee members to speak on -- on the topic of workgroups, let me just take a quick review of the LEPAC charge. So you know primarily the charge includes reviewing federal programs and services available to individuals, communities -- and communities exposed to lead. Reviewing current research on lead exposure to identify additional research needs. Reviewing and identifying best practices or the need for best practices regarding lead screening and the prevention of lead poisoning.

And you heard quite a bit about, you know, this -- this particular aspect of our charge today. In fact, Perri's presentation went into some -- some depth on that topic as did, you know, one of the public comments that we received. This in the afternoon -- early afternoon. Another aspect of our charge is identifying effective services, including services related to healthcare education and nutrition for individuals and communities affected by lead exposure and lead poisoning, including in consultation with, as appropriate, the Lead Exposure Registry as established in Section 2203, Part B of Public Law 114-322. And finally, our charge also allows us, the LEPAC's charge also allows it to undertake any other review or activities that the Secretary determines to be appropriate.

So with that I would like to open up the floor for discussions from our -- our -- our voting members, as well as our non-voting liaison members. If you could just please raise your virtual hands if you would like to offer any thoughts or recommendations regarding a new workgroup for the LEPAC. So Howard, did you -- did you have a thought?

DR. MIELKE: Yes.

DR. ALLWOOD: Yes.

DR. MIELKE: I certainly think that we need to

advance our understanding about air lead as it relates to childhood lead exposure. In air lead soil, it's really a cycle of air lead, soil lead and exposure back to the air that we certainly -- I -- I have done a number of -- a number of studies on that topic and I would hope that we could advance the understanding of, and -- and not only the understanding of, but also finding ways to prevent exposure from the legacy sources that are especially found in urban environments. So maybe a workgroup on that topic would be very appropriate.

DR. ALLWOOD: Okay. Thank you so much, Howard. I'm sorry, did you have anything else that you'd like to share, Howard?

DR. MIELKE: Yeah. I think I should be more emphatic, it's not just that it would be appropriate, but it must be done or I don't think we're going to continue making much progress, especially with the -- the disparities we see are related to the exposures from the environment and we're not -- I'd like to see all our cities maps, for example. The Europeans are doing a great job on mapping cities, but we can't seem to get the same movement towards mapping cities. We've just dismissed the use of the USGS as an entity for, I mean, in the city because their mission doesn't include urban environments and I'd love to -- I'd like to see that move forward. I

think there will be a lot of surprises, and ones that may not be as hard to handle as -- the present policy seems to indicate that doing anything with the outside environment seems to be out -- out of the range of what our agencies to be working on. Anyway that's...

DR. ALLWOOD: Thank you so much, Dr. Mielke. Any -- any comments or -- or, you know, any additional discussion related -- related to Dr. Mielke's suggestion?

DR. MIELKE: Well, let's --

DR. ALLWOOD: Yeah. I'm having a little trouble. If you're raising your hand and I'm not calling on you, it's because I haven't seen you. So if you've got something that, you know, I invite you to kind of shout it out. If I -- if you're -- if you have a hand raised and you haven't heard from me. Now -- now, I do see a hand raised and I can't tell who it is, but please feel free to speak.

DR. RUCKART: It's Howard.

DR. ALLWOOD: Oh, it's -- it's Howard. Oh, I'm sorry. Okay. Howard, do you -- do you have additional comments to make? Okay. All right. Anybody else? Any other thoughts about workgroups or, you know, or workgroups that might be appropriate for us to consider creating?

DR. RUCKART: Anshu?

DR. MOHLLAJEE: Hi. I do believe that Dr. Mielke's

suggestion is a great suggestion; however, my suggestion might seem to be opposite of that suggestion. But it's not -- but to actually -- maybe a working group that looks more at what I would label as non-housing exposures and so exposures that are occurring among our immigrant communities and our refugee communities and trying to find strategies around the prevention and kind of the communication messages around that.

DR. ALLWOOD: Thank you for that, Anshu. If I might just ask, Anshu, when you say non-housing exposures, you know, what --

DR. MOHLLAJEE: Oh, yes, like cosmetics, spices, things of that nature.

DR. ALLWOOD: Okay. I was thinking also, would it include like non-housing situations too, such as like schools or daycares and other venues, or not?

DR. MOHLLAJEE: I was going to add occupational exposure in that. The schools, I'm not exactly sure. I think that's a little --

DR. ALLWOOD: Okay.

DR. MOHLLAJEE: -- that. Yeah.

DR. ALLWOOD: All right.

DR. MOHLLAJEE: That's not normally how we do it in California so... Normally, we would then say if we found something in a -- in a daycare facility that was related

to peat, dust, soil or water then we would label it as, you know, a lead hazard in a housing, in quotation marks.

DR. ALLWOOD: Okay. Thank you so much for that. Any -- any comments on -- regarding -- regarding Anshu's suggestion for a workgroup? Okay. Again, if your -- if your hand -- if you have a hand raised and I haven't called on you it's probably because I'm not seeing you so feel free to speak up if you have a suggestion to offer.

MS. JOHNSON: Hi. This is Karla and, you know, one of the things that I think would be really nice to look at, have a workgroup that's -- is to really look at some of the -- the longer term educational initiatives or educational outreach to families and children who have been lead poisoned, you know, and I -- and I think I've said this before, it's like -- it seems like that, at least in -- in my world, and when I -- and I'm dealing with lead poisoning a lot, is that the education on the outreach tends to stop once the child is six or seven years old, but we talk about the long-term impact. And so what kind of initiatives or outreach or educational -- I don't know -- I don't even know what the word is -- for families to look at in the long-term, or that, you know, the -- the lifetime effect of -- of this. What those -- those issues or concerns that may come up. I hope that made sense.

DR. ALLWOOD: Yes, yes, it does. And thank you for that suggestion. Any -- any question on -- on that, Karla's suggestion or any comments? Okay. Anything else? Any other suggestion that we -- that you would like to share?

MR. AMMON: Paul, this is Matt. One additional one is, you know, we've heard a lot about lead exposure in schools. I know we're not making decisions, but just in terms of referring that into the mix because we've heard a lot about lead in schools and the focus on -- not in the home environment, but in the school environment.

DR. ALLWOOD: Thank you. Thank you, Matt. Yeah. That has, you know, been quite an area of focus and very topical and, yeah, thank you for putting that on the table, Matt. Any -- any questions on Matt's suggestion or any -- any -- any thoughts or comments on it? Okay. Hearing none. Oh, I'm sorry. Is someone coming in?

DR. MIELKE: Yeah. I -- I am. Along with schools, I think childcare centers need a lot of attention because that's a location for really early childhood exposure.

DR. ALLWOOD: Thank you. Thanks, Howard. And Matt, so your suggestion has just been expanded a little bit to also include daycares. Is that something that you are okay with?

MR. AMMON: Yep. Makes sense to me.

DR. ALLWOOD: Okay. All right. Anything else from the LEPAC members, including our affiliates? Any other -- any other thoughts or ideas about workgroups that we might consider?

MS. BARNHILL-PROCTOR: This is Tammy Proctor. I think the workgroups that have been suggested are good workgroups. I -- I really would encourage that we strongly make sure that we really think through our communication strategies and our outreach strategies for how we communicate the need for screenings for young children and how -- what are some of the resources out there for when you start tapping into childcare centers and places like that. Really be clear on what the resources are and -- and how the resources can benefit the centers and children so...

DR. ALLWOOD: Thank you for that, Tammy. Yes, you're absolutely correct. We have to be clear in our communication. Okay. There's still, you know, time left on the agenda for additional suggestions if there are any so I'll invite committee members to share your thoughts or your ideas for any workgroup that we might -- you might consider creating.

DR. MIELKE: Has -- has there been follow-up on Michael Kosnett's suggestion of a subcommittee to -- for prevention of occupational lead exposure?

DR. ALLWOOD: So thanks for mentioning that, Howard. So, you know, you know, we all heard that Dr. Kosnett's public comment, and, you know, the member -- members would have received, you know, his -- his petition for a workgroup and this is the opportunity to, you know, to hear from all of you, you know, what your -- your thoughts are, and, you know, how you feel about what -- what -- what -- what is being petitioned. So do you have any -- any perspectives on -- on that, Howard?

DR. MIELKE: I do. I've worked with families that live in areas that normally you wouldn't expect to see much lead exposure. It turns out the breadwinner in the family, the father was doing paint work and sanding work and when he'd come back, he -- he kept the clothes on that he was working at the -- at the job, bringing it back home and then the kids would come running out and hug him and he hadn't -- he was carrying an enormous burden of lead on his clothes and we suddenly -- we realized that that was part of the problem. The lead burden being brought into the home as a result of the work -- the workplace which is a workplace that is now painters, basically, see a lot of painters in New Orleans, often Hispanic painter -- painters that are sanding and they know that it's dangerous but they don't have any other jobs. I don't know how to, you know, develop a program on that, but it

certainly needs to be an awareness. I would still put the emphasis on children's exposure only because it's such a long life exposure that's taking place or long life consequences of early childhood exposure, but adults need it -- need to be aware, as well, and certainly women. The other experience I've seen is people doing lead -- they're working with lead in glass and making some beautiful glass work windows and they were causing an enormous amount of exposure within the household, especially in the dust in the work -- workplace and the children were going into those areas. I've never seen much discussion about that, but I'm sure it is -- it's something, excuse me, I -- I just tested positive for COVID so if I run into difficulties, sorry.

DR. ALLWOOD: Sorry, sorry to hear that -- that Howard and hope you're feeling, you know, better and I'm glad you were able to join despite, you know, not feeling at your best. So -- and thank you also for -- for the comments that you offered in relation to the -- to the petition and the -- the comments that we heard today. Does anybody else have any -- anything to add or any -- any questions? I know I've heard from several of you on the, you know, the question of -- of workgroups that might be considered, but I think there's still several people that I have not heard from and, you know, this would be

your opportunity to -- to -- to share on this -- this topic so -- so we still have a little bit of time and, you know, maybe I'll just allow a couple more minutes for --

MR. AMMON: We have two. We have Jill and Patrick.

DR. ALLWOOD: Yes.

MR. AMMON: Jill will be first.

DR. ALLWOOD: Yes.

DR. RYER-POWDER: So -- so I -- I -- I think the -- the occupational workgroup would be a -- a great idea and, and very beneficial. I, you know, based on the work with the blood lead reference value and driving policy if -- if that workgroup could come up with, with evaluations regarding what would be safe levels of exposure in the workplace and perhaps influence OSHA levels which are -- which are really old and based on blood lead levels of like 40 or 50 micrograms per deciliter, I think that would be really valuable. The -- not to mention out here the Proposition 65 level for reproductive hazards is -- is based on that old OSHA occupational level. So certainly that Prop 65 level is not protective of developmental or reproductive system effects. You know, in regards to -- I -- I know children are very important for -- for LEPAC and LEPAC's charge, but -- but, you know, for the occupational exposure it's women of childbearing age who are obviously affecting the fetus and also I, you know, a lot of people

brought up the -- the issue of men bringing home lead on their clothing and on their shoes and children being exposed in the home. So you know, for those reasons and I'm -- I'm sure a lot of other ones I think that occupational workgroup would be really beneficial.

DR. ALLWOOD: Thank you, Jill. Appreciate your comments. And we have another person wanting to speak on this.

DR. RYER-POWDER: Well, you're welcome.

DR. RUCKART: Yes, it's Patrick.

DR. ALLWOOD: Yes, Patrick.

DR. PARSONS: So I -- I actually didn't get to see Dr. Kosnett's report, but I -- I think he raises a very important issue and one that really doesn't get aired very much. So I think that a workgroup to look at occupational health exposures is important, but there's a lab aspect to this that I would like to bring to the table. You know, another hat that I wear for the New York State Department of Health, like, I've looked at the standards for clinical laboratories and we have specialty standards for blood lead labs and we make it clear there that those test reports need to be transparent about what is elevated for adults, regardless of whether they work in industries with lead, or whether it's a pregnant mom. And we've had difficulty with some laboratories that serve the

construction industry trying to get away with 40 as being elevated. That's really disingenuous and so we -- we -- we say that, well, when it was five, five represents elevated for adults too, and I rather suspect that 3.5 is elevated for the vast majority of the -- of the adult population in the U.S., and so I think that -- that laboratory test reports have to be transparent about what is elevated for adults, regardless of whether they work in the industry. Now, health standards in industry is a different issue. And yes, they are woefully out of date and so I think that maybe a workgroup should pull in expertise from NIOSH and from OSHA. But I think that, you know, the reality check is that you're forgetting -- but when the federal government moves rather slowly with regulations and it's -- it's clear that, you know, you know, OSHA's it's -- it's -- is very slow. But you know, this is a group that has some, you know, role to play here, to advise the federal government of where we need to make changes, quickly. So I think that's one of them. So I think that this is a -- a worthwhile effort I -- I would certainly support.

DR. ALLWOOD: Thank you so much, Dr. Parsons. And appreciate your comments and just by -- just by way of noting, the LEPAC does have an OSHA member, but she was not able to join us today. Yeah. Did I -- and I still --

is there anyone else that wants to comment on this that I, you know, I apologize, I -- I can't see the hands.

DR. RUCKART: Jamie.

MR. MACK: Jamie Mack. If I can make a quick -- a quick comment?

DR. ALLWOOD: Yes, Jamie. Yes, of course.

MR. MACK: I just want to put out there that I think that the discussion about outreach and education is very important, especially in, you know, the aspect of increasing compliance with the testing rates that I think a lot of states are seeing challenges with. And I really appreciated the presentation we saw a little while ago, but I think that might be a very worthwhile area to explore, as well.

DR. ALLWOOD: Thanks Jamie. I -- I agree. All right. Is that everybody? Does anyone else want to get in? We -- we have maybe a little less than a minute now but still enough time to hear from anybody else that has something that they really want to put out there and has -- hasn't had -- hasn't done that yet. Okay. On my screen, it's saying that two participants have hands raised. I can't see which two or is it still a -- it's a leftover -- leftover from before?

DR. RUCKART: Jamie's is still up, but Jeanne also has her hand up.

DR. ALLWOOD: Oh Jeanne, oh yes, Jeanne. Please go ahead.

MS. BRISKIN: Hi. I'm sorry I was unavoidably pulled away during part of the discussion. Would it be possible to either verbally or follow up in writing, just a quick list of the -- of the ideas that are on the table because unfortunately I missed a number of them and we don't have to take up time now if that's not appropriate. Thank you.

DR. ALLWOOD: Okay. All right. Sure Jeanne, you know, I'll -- I'll leave that up to Matt as he gets into the wrap-up discussion. And you know, you know, he may be able to share a little bit on -- on the list, if not now, we will certainly follow up and provide you with the suggestions. And with that I see that we are time for -- for this part of the agenda and so I'm going to turn it back over to our Chair, Matt Ammon.

WRAP UP AND DISCUSS TOPICS FOR NEXT MEETING

MR. AMMON: Thanks, Paul. And thank you to everyone on this call who was able to make it and -- and participate and listen. I know every time we have these meetings I learn something new and, you know, I always am amazed at how much work and how much dedication that -- that there is in terms of mitigating the effects of -- of lead and -- and everything that we are doing collectively at the federal, state, local, nonprofit, all -- all

sectors are really working toward, you know, the goal of addressing lead and lead exposures. And -- and today we learned a lot, you know, not only in terms of updating where we are on the BLRV implementation.

In terms of Flint and -- and where they are in their progress. Hopefully, you know, the word Flint isn't synonymous with the bad, but it's synonymous with the opportunity and the good and what they've been able to do and accomplish and to me in a pretty short timeframe, but it's an amazing learning experience I think that many jurisdictions certainly can learn from.

And then new emerging issues that we learned from Clarksburg, West Virginia. And I know when I received an email alert from what was going on, you know, we immediately jumped on and -- and asked how can we help and engaged our regional folks to make sure that we were a part of whatever information and solution could be brought to help solve that problem. Then we learned of course about the Bipartisan Infrastructure Law and -- and really all the work that will be coming down the pipe in terms of -- of -- of lead in water and replacing of lead service lines. And you know the one thing that did strike me is that, you know, when you -- when you, typically you know, when you hear about oh, a law passed. Oh well, we won't be able to implement it for ten years, you know, but the

fact that the money is flowing already and Jamie said, you know, that we're -- we're gearing up. We're getting ready, you know, we're -- we're making sure everything is in place and that's really encouraging to hear. Again, just because, you know, a lot of times when you hear about federal anything that passes at the federal level, how long it takes to at least get the initial money out the door, and I'm not just talking about our CBD dollars which was commented on earlier.

And then hearing all the great work that we're all doing, collectively all of us, and hearing all the work that we're doing related to lead and, and other health issues. You know, it's very encouraging that -- that -- that we can -- if -- when we share and also learn from each other and hear what each other's been doing and realize that, oh, there's another part that I can join or how can I help out, you know, I think that's the fundamental question that I always have. And how exactly can we help?

As we heard from Dr. Mielke on legacy lead, lead in soil, and air and blood, very deep and rich conversation and really, a -- a great showing of the -- the huge amount of research that has been done in that sector and certainly what opportunities we can look forward to.

And then of course we heard from our grantees, you

know, grantees at the local level, and how are they managing these issues, and what are they doing? What do they need from us? Clearly, we're not helping them much when it comes to having to navigate not only all the -- the funding sources in the various aspects of each one of those, but when you have to create a table that says this is what we can do with this funding, this is what we can do with this funding. Yeah, yeah, I think that's a -- a charge back to us to say, well, how can we make improvements? And we -- we're starting to do that, you know, one of the things that I didn't want to, because we ran out of time, was just talk about the income eligibility aspect of that work and -- and realizing that we have differences in income eligibility, you know, both at the HHS level with federal poverty level and then ours, of course, in area median income and how can we have parity with that and alignment with that and, you know, asking Congress to really say, well, if you're already eligible under one program, other means tested programs, shouldn't you be eligible under other federal programs. And trying to make sure that -- that that work sinks to the local level to make it easier for them to just use the money, like, use the money to focus on improving families, children and communities, right. I think that's -- that's what it's all about. And as part of that, you know, we --

we heard from Dr. Ruckart in terms of, you know, what can we learn in terms of how do we improve -- improve our -- our approach to blood lead testing? How can we -- how can we increase those, you know, you know, the last two years, two and a half years have been -- have been terrible in terms of the number of kids tested, but even before then there were still vast amounts of opportunity to increase testing which certainly helps focus on where we are in terms of -- of providing resources and where we need to be.

And then the last discussion is, you know, where -- where are there other opportunities that we can work in terms of -- of putting together additional workgroups and -- and Jeanne my -- my list that I have and I'm not sure if I got all of them, but we -- it was proposed to have an air lead and outdoor environment-type workgroup, of course, the occupational lead exposure which we not only have a petition on, but we also talked about that ourselves. Non-housing exposures related to cosmetics and -- and other things and cultural remedies, things of that nature, lifetime effects, you know, showing the long-term effects of lead exposure, schools and childcare centers as a focus and also a focus on kind of -- kind of layering on top of all that are the communities, I'm sorry, communication and outreach for screening and -- and having

parents and medical providers giving them enough information and good information and to encourage that to happen outside of universal screening. All of those things certainly we'll be taking under advisement and consideration.

So that's -- that's how the day went. It was a -- it was a really great agenda and I appreciate everyone's help and I appreciate CDC tremendously in putting all this together and making this run seamlessly, except for me getting the time wrong. Trying to give you guys more time. But I appreciate everything that you all contributed today, and are doing, and will be doing, and I look forward to our future discussions and really our future work together. I think there's a tremendous amount that of -- that we've accomplished, but also that we still need to be focused on. So I'll pause for a second. I know I'm very close to time, but I want to make sure if anybody else wants to provide closing comments before we adjourn.

DR. ALLWOOD: Hey Matt, I'd just like to, you know, echo some of your -- some of your words regarding the way the meeting was -- was conducted today. For, you know, the variety of presentations that we had the very, very useful and informative, you know, presentations that came from just about everybody that -- that participated in the

meeting today. Also really, you know, pleased to see that folks were willing to put forward their ideas for workgroups and, you know, we're quite thoughtful about the different types of workgroups that we might consider. And like you, Matt, you know, I -- I am really looking forward to -- to, you know, continue to work of this community -- of this committee. And, you know, for partnering and working with -- with all of -- all of the members. I also wanted to just, you know, make special -- special acknowledgement of the -- the fact -- the first meeting that has our non-voting liaison members and that, you know, I -- I, you know, offer my thanks to all of you who have really brought your voices to this meeting in a very meaningful way, offered, you know, great comments and asked really great questions and I'm certainly looking forward to -- to having you with us again in the future. Thank you all.

DR. BREYSSE: And if -- if I could just say a few words to wrap up as well, myself. I want to -- I want to thank everybody again for participating and I -- I also want to congratulate the -- the staff that Paul put together and others put together for the meeting. It was a well-run meeting and well thought out. Great meeting. And I appreciate all your time and I appreciate your input and I look forward to next time as we start to move the

needle forward. Thank you.

MR. AMMON: Thank you, Dr. Breysse. And one day we'll see each other and be together, again.

DR. BREYSSE: Most -- most people don't know that when I first started my -- my job, I would go to meeting after meeting after meeting. I think every other meeting I was on the platform with Matt. So it almost seemed like I was -- everywhere I went he was around -- I was shadowing Matt or Matt was shadowing me.

MR. AMMON: Yeah.

DR. BREYSSE: So having been like three years or so now, without seeing Matt or Chris has been -- been a bit of a challenge for me, but we'll -- we'll -- we'll -- we'll get over that sometime soon, I hope.

MR. AMMON: We will. I hope too. Well with that, again, I appreciate everybody's work and help and with that, I'll close out the meeting with hope to see you all soon. Take care.

DR. RUCKART: Thank you, bye.

(Meeting adjourned at 4:25 p.m.)

CERTIFICATE

STATE OF GEORGIA
COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, CVR-CM-M, CCR 2102-A, hereby certify that the foregoing pages constitute a true, correct and accurate transcript of the hearing 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 kin nor counsel to any of the parties hereto.

In witness whereof, I hereby affix my hand on this, the 3rd day of June, 2022.

_____

Steven Ray Green, CVR-CM-M, CCR 2102-A