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**Department of Health and Human Services
Lead Exposure and Prevention Advisory Committee (LEPAC) meeting
National Center for Environmental Health (NCEH)
Centers for Disease Control and Prevention (CDC)
May 14, 2021
9:00 a.m. ET to 3:25 p.m. ET**

Meeting Summary

The Lead Exposure and Prevention Advisory Committee (LEPAC) convened on May 14, 2021. Remote participation through a virtual ZOOM meeting was used to hold the meeting. Approximately 42 public participants attended the meeting or a portion of the meeting. Approximately 74 Federal employees attended the meeting or a portion of the meeting. The meeting was open to the public.

LEPAC Members Present (in alphabetical order):

- Matthew Ammon, M.S., LEPAC Chair, Director, Office of Lead Hazard Control and Healthy Homes, U.S. Department of Housing and Urban Development (HUD)†
- Jeanne Briskin, M.S., Director, Office of Children’s Health Protection, U.S. Environmental Protection Agency (EPA)†
- Wallace Chambers, Jr., M.H.A., Deputy Director, Environmental Public Health, Cuyahoga County Board of Health
- Tiffany DeFoe, M.S., Director, Office of Chemical Hazards-Metals, Occupational Safety & Health Administration (OSHA), U.S. Department of Labor†
- Dr. Michael Focazio, Ph.D., Program Coordinator, Environmental Health Mission Area, U.S. Geological Survey (USGS)†
- Nathan Graber, M.D., M.P.H., Pediatrician, St. Peter’s Pediatrics, St. Peter’s Health Partner Medical Associates
- Karla Johnson, M.P.H., Administrator, Healthy Homes Environmental Consumer Management and Senior Care Department, Marion County Public Health Department
- Donna Johnson-Bailey, M.P.H., R.D., Senior Nutrition Advisor, Office of Policy Support, Food and Nutrition Service, U.S. Department of Agriculture (USDA)†
- Erika Marquez, Ph.D., M.P.H., Assistant Professor, School of Public Health, University of Nevada at Las Vegas
- Howard Mielke, Ph.D., M.S., Professor, Department of Pharmacology, Tulane University School of Medicine
- Anshu Mohllajee, Sc.D., M.P.H., Research Scientist Supervisor I, Childhood Lead Poisoning Prevention Branch, California Department of Public Health
- Jill Ryer-Powder, Ph.D., M.N.S.P., Principal Health Scientist, Environmental Health Decisions

Absent LEPAC Members:

- Tammy Barnhill-Proctor, M.S., Supervisory Education Program Specialist, Office of Innovation and Early Learning, Office of Elementary and Secondary Education, U.S. Department of Education (DOE)†
- Dr. Monique Fountain-Hanna, M.D., M.P.H., Senior Regional Medical Consultant, Maternal and Child Health Bureau, Division of Home Visiting and Early Childhood Systems, Region III, Health Resources and Services Administration (HRSA)†

Speakers (in alphabetical order):

- Peter Ashley, Dr.P.H., M.P.H., Director, Policy and Standards Division, HUD Office of Lead Hazard Control and Health Homes†
- Kathryn Egan, Ph.D., M.P.H., M.Phil., Epidemiologist, Lead Poisoning Prevention and Surveillance Branch (proposed), NCEH, CDC*
- Warren Friedman, Ph.D., CIH, FAIHA, Senior Advisor to the Director, HUD Office of Lead Hazard Control and Healthy Homes†
- Jill Ryer-Powder, Ph.D., M.N.S.P., Principal Health Scientist, Environmental Health Decisions

Public Commenters (in alphabetical order):

- David Jacobs, Ph.D., CIH., Chief Scientist at the National Center for Healthy Housing (NCHH)
- Justin Leef, Esq., M.P.A., Cloud Strategy Federal Health at Teradata Government Solutions

CDC Attendees with Active LEPAC Meeting Participation During (in alphabetical order):

- Paul Allwood, Ph.D., M.P.H., RS, Branch Chief, Lead Poisoning Prevention and Surveillance Branch (proposed), NCEH/ATSDR
- Patrick N. Breyse, Ph.D., CIH, Director, National Center for Environmental Health (NCEH)/Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention (CDC)
- Ginger L. Chew, Sc.D., Deputy Associate Director of Science, Division of Environmental Health Science & Practice (DEHSP), NCEH/CDC
- Perri Ruckart, Dr.P.H. (cand.), M.P.H., LEPAC Designated Federal Officer (DFO), Lead Health Scientist, Program Development, Communications, and Evaluation Team, Lead Poisoning Prevention and Surveillance Branch (proposed), NCEH, CDC
- Jana Telfer, M.A., LEPAC Meeting Facilitator, Strategic Projects Officer, NCEH/ATSDR CDC

Federal Attendees (in alphabetical order):

- | | | |
|----------------------|--------------------|--------------------|
| • Christine Alvarez† | • Arthur Chang* | • Hope DeVougast† |
| • Laura Bellinger* | • Stella Chuke* | • Shirley Ding* |
| • James Brown† | • Amy Cordero* | • Kristin Dortch* |
| • Stephanie Brown† | • James Couch* | • Scott Douglas† |
| • Tonia Burk* | • Kimball Credle* | • Sheryl Driskell* |
| • Sharunda Buchanan* | • Lindsey de Beer* | • Erin Evans* |
| • Yulia Carroll* | | |

- LaShaundra Everhart*
- Steven Foster†
- Melanie Franklin*
- Athena Gemella*
- Lisa Gilmore†
- Donata Green*
- Charles Grosse*
- Qaiyim Harris*
- Amanda Hauff†
- Treka Henry†
- Maggie Hermant†
- Carole Hossom*
- Candis Hunter*
- Wilma Jackson*
- Mica Jamison*
- Jeff Jarrett*
- Deanna Jones*
- Madeline Jones*
- Robert Jones*
- Steven Jones*
- Matt Karwowski*
- Brian Kennedy*
- Anna Khan*
- Veronnica King*
- Tanya LeBlanc*
- Carolina Lecours*
- Monica Leonard*
- Juliane Lessard†
- Chanya Liv†
- Ameesha Mehta-Sampath†
- Magaly Mendez†
- Anna Mercert†
- Jonathan Michaud*
- Moriah Newton*
- Shannon Omisore*
- Wellington Onyenwe*
- Youlanda Outin*
- Linde Parcels*
- Shamika Parker†
- Pam Protzel-Berman*
- Alexis Pullia*
- Brenda Reyes†
- Hope Roobol*
- Rio Schondelmeyer*
- Sophia Serdat†
- Rieza Soelaeman*
- Danielle Stukes*
- Scott Sudweeks*
- Erik Svendsen*
- Jerry Thomas*
- Leanna Thompson*
- Nancy Tourk*
- Sheree Wilkerson*
- David Williamson*
- Valerie Zartarian†

*Attendees from CDC

†Attendees from other federal agencies

Public Attendees (in alphabetical order):

- Lucas Allen
- Barbara Beck
- Mitchell Berge
- Eric Bind
- Joel Cohen
- Natasha DeJarnett
- Adrienne Ettinger
- Doug Farquhar
- Shannon Garcia
- Julie Goodman
- Perry Gottesfeld
- Alberto Gutierrez
- Nick Hart
- Kuki Hansen
- Gredia Huerta-Montanez
- GerriAnne Huey
- David Jacobs
- Melissa Josefiak
- Hema Ketha
- Zachary Laris
- Justin Leef
- Christopher Lindsay
- Rosemary Mattuck
- Roger Miksad
- Josh Miller
- Paul Moyer
- Julianne Nassif
- Tom Neltner
- Ruth Norton
- Jim Nowicki
- Patrick Parsons
- Amanda Reddy
- Martha Rivera
- Sam Rose
- Angana Roy
- Marc Rumpler
- Mike Sage
- Knatalie Vetter
- Carter Volz
- Erin Wallace-Wimsatt
- Mark Werner
- Nse Witherspoon

Public comment: Held from 11:45 a.m.–12:00 p.m. Commenters included David Jacobs, Ph.D., CIH, Chief Scientist at the National Center for Healthy Housing (NCHH); and Justin Leef, Esq., M.P.A., Cloud Strategy Federal Health at Teradata Government Solutions.

Common Themes: Federal activities to prevent, reduce, and eliminate childhood lead exposure; primary and secondary prevention; case management and follow-up; screening, blood lead reference value

(BLRV) among U.S. children; environmental lead in soil; housing and health; partnerships and community engagement; environmental justice; health equity; clear communication; dust-lead standards; progress reducing the prevalence of housing units with dust-lead hazards, lead-based paint, and lead-contaminated soil; lead in consumer products

Identified Research Gaps: Occupational/recreational take-home exposure; surveillance integration; consumer understanding of lead exposure and mechanisms for identifying contaminated products; identifying high-risk communities; lead in ammunition; correlation between race/ethnicity, income, and prevalence of lead hazards in housing; accuracy of point-of-care instruments in identifying lower blood lead levels (BLLs); lead in soil; revised dust-lead and soil-lead standards; impact of housing codes and state and local ordinances on lead-paint hazards in housing units

Meeting Notes:

Federal Lead Action Plan (FLAP)

Warren Friedman, Ph.D., CIH, FAIHA, Senior Advisor to the Director, HUD Office of Lead Hazard Control and Healthy Homes

- [The Federal Lead Action Plan \(FLAP\) to Reduce Childhood Lead Exposures and Associated Health Impacts](#) is a product of *President's Task Force on Environmental Health Risks and Safety Risks to Children*.
- The FLAP was developed across 17 Task Force agencies, has over 70 different actions to address childhood lead exposure, and serves as a blueprint for reducing lead exposure through collaboration between federal agencies and other stakeholders.
- The FLAP focuses on highly exposed communities and places and has four goals: 1) Reduce children's exposure to lead sources, 2) Identify lead-exposed children and improve their health outcomes, 3) Communicate more effectively with stakeholders, and 4) Support and conduct critical research to inform efforts to reduce lead exposures and related health risks.
- Through the FLAP's goals and objectives, agencies and stakeholders review, analyze, evaluate, revise, and implement various measures to strengthen primary and secondary prevention.
- More details are available in the meeting [transcript](#) on pages 23–42 and in the [presentation slides](#).
- LEPAC members discussed integrating social and economic factors into identified activities and strategic planning, collaborating with lead-related research across the country (e.g., soil sampling sites in California), incorporating primary prevention efforts into the built environment, assessing lead in ammunition, and identifying communities with children whose BLLs exceed the BLRV.

American Healthy Homes Survey (AHHS) II

Peter Ashley, Dr.P.H., M.P.H., Director, Policy and Standards Division, HUD Office of Lead Hazard Control and Health Homes

- The [American Healthy Homes Survey \(AHHS\) II](#) was conducted in 2019 by HUD and EPA.
- AHHS II data identified 29 million permanently occupied, non-institutional housing units with lead hazards in the U.S.: 22 million with dust lead hazard, 18 million with significantly deteriorated lead-based paint, 2.3 million with soil lead hazards, and 10.4 million homes with bare soil greater than or equal to 200 ppm. These estimates were based on new lower standards for dust and soil and are not comparable to prior AHHS results.

- Factors that contribute to a significantly higher prevalence of lead-based paint hazards include older housing (especially pre-1960), single family housing, housing located in the Northeast or Midwest, lower income households (< \$35K/year), households not receiving government housing assistance, and non-Hispanic households.
- More details are available in the meeting [transcript](#) on pages 53–68 and in the [presentation slides](#).
- LEPAC members discussed radon testing, the overlap of household poverty and African American households, differences between the households enrolled in previous surveys and AHHS II, the decreasing trend in housing units with lead-based paint or lead-based paint hazards, and possible future trends.

40-Year National Health and Nutritional Examination Survey (NHANES) Analysis

Kathryn Egan, Ph.D., M.P.H., M.Phil., Epidemiologist, Lead Poisoning Prevention and Surveillance Branch (proposed), NCEH/ATSDR

- This analysis aimed to describe the distribution of BLLs in U.S. children ages 1–5 years and 6–11 years by selected sociodemographic and housing characteristics over a 40-year period from 1976–2016.
- The average BLL in U.S. children ages 1–5 years declined from 15.2 µg/dL in 1976–1980 to 0.83 µg/dL in 2011–2016 which is a 94.5% decrease. For children ages 6–11 years, the average BLL declined from 12.7 µg/dL in 1976–1980 to 0.60 µg/dL in 2011–2016 which is a 95.3% decrease.
- Overall, BLLs in U.S. children ages 1–11 years have decreased substantially over the past 40 years. This is a huge public health achievement.
- LEPAC members wanted to understand if BLLs have changed significantly since 2016. This question could not be further discussed because 2017–2018 data were not available at the time of analysis.
- More details are available in the meeting [transcript](#) on pages 77–89, in the [presentation slides](#), and in the [publication](#).

Public Comment

- Dr. David Jacobs gave a brief history of how soil lead standards were developed and emphasized the need to consider revising soil lead standards as dust lead standards have been updated. He also mentioned looking into linking data from AHHS and NHANES.
- Justin Leef encouraged LEPAC to work across agencies to integrate existing and new disparate sources of data and engage leaders of data modernization initiatives to inform state and local leaders. These efforts could be used to inform policy decisions.

Annual Report Discussion

Matthew Ammon, M.S., LEPAC Chair, Director, Office of Lead Hazard Control and Healthy Homes, U.S. Department of Housing and Urban Development (HUD)

- The LEPAC Chair briefly reviewed the 2020 Annual LEPAC report which CDC is required to provide to the Secretary of the Department of Health and Human Services (HHS).
- A motion was made to approve the annual report. There was unanimous approval of the report.

Blood Lead Reference Value (BLRV) Workgroup Update Presentation

Jill Ryer-Powder, Ph.D., M.N.S.P., Chair of the BLRV Workgroup, Principal Health Scientist, Environmental Health Decisions

- The current BLRV is 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$), based on the 97.5th percentile of the NHANES blood lead distribution in children ages 1–5 years using data from 2007–2008 and 2009–2010.
- The BLRV Workgroup was established under CDC’s LEPAC. In October 2020, the BLRV Workgroup was charged with providing recommendations for establishing or re-establishing a BLRV.
- The BLRV workgroup recommends adopting a revised BLRV of 3.5 $\mu\text{g}/\text{dL}$ based on the most recent NHANES cycles 2015–2018 and recommended that CDC implement a plan to address barriers associated with testing, messaging, and capacity for affected federal agencies and stakeholders.
- The BLRV workgroup also recommends reaffirming CDC's commitment to regularly evaluating NHANES data to identify the 97.5th percentile of blood lead distribution and adopting a policy that this analysis may be used either to maintain or lower, but never raise, the BLRV.
- More details are available in the meeting [transcript](#) on pages 106–119 and in the [presentation slides](#).
- A draft BLRV report with a recommendation to revise the BLRV was submitted to the LEPAC for review and approval in April 2021. LEPAC members can send written comments to incorporate into the final report, which is not yet available.

Facilitated Discussion of BLRV

- LEPAC members noted the challenge and need to consistently communicate to stakeholders how to interpret and use the BLRV. A LEPAC member emphasized the need to cultivate a relationship with caregivers of lead-exposed children to communicate and disseminate information.
- LEPAC members would like to see the public health agencies section of the report expanded upon, especially the impact on their roles and the dissemination of information.
- Some jurisdictions are now adopting the current BLRV of 5 $\mu\text{g}/\text{dL}$, so the roll out plan for the revised BLRV must be carefully designed.
- A LEPAC member commented that technological improvements and improvements to analytical sensitivity are needed to effectively implement a lower BLRV.
- Since universal testing is not required nationally, LEPAC members wondered how various stakeholders would identify children with BLLs of 3.5 $\mu\text{g}/\text{dL}$ and greater in states without universal testing.
- Discussion was held on assessing the costs and benefits of lowering the BLRV, especially given that the revised BLRV could potentially lead to more environmental investigations.

Discussion approving the workgroup’s recommendation to lower the BLRV

- The LEPAC Chair reiterated that LEPAC has the capability to approve or reject the BLRV Workgroup recommendation. If the LEPAC approves the recommendation, it moves forward to CDC for review.
- The LEPAC unanimously motioned to approve the recommendation to lower the BLRV to 3.5 $\mu\text{g}/\text{dL}$.

Wrap-up, final thoughts, potential topics for next meeting:

- LEPAC received a request from Congress to produce a report about the prevalence and impact of lead paint manufacturing plants to include identifying the plants, public health hazards posed by these plants, and how leaded paint is being circulated. LEPAC members discussed whether this

request is within the committee's scope. LEPAC members will discuss if they will produce a report pending additional information and data.

- Discussion of the need for information and resources regarding lead in consumer products and the possibility of a Food and Drug Administration presentation at a future meeting
- Discussion on innovative methods and tools for local health departments to address lead hazards effectively and efficiently
- Discussion on President Biden's efforts to replace lead pipes and the committee's role
- Discussions on environmental justice as it relates lead exposure
- The time frame for the next proposed LEPAC meeting is Fall 2021

I hereby certify that, to the best of my knowledge, the minutes of the May 14, 2021 meeting of the Lead Exposure and Prevention Advisory Committee (LEPAC) are accurate and complete.

Date

Matthew Ammon, Chair, Lead Exposure and
Prevention Advisory Committee