

A Shared Mission:

Using Data to Reduce the Social Determinants of Health and Advancing Health Equity



NIH U.S. National Library of Medicine

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NATIONAL INSTITUTES OF HEALTH NATIONAL LIBRARY OF MEDICINE[®]

ENVIRONMENTAL HEALTH AND INFORMATION PARTNERSHIP

32nd Annual Meeting Howard University Louis Stokes Health Sciences Library March 30–31, 2023

A Shared Mission: Using Data to Reduce the Social Determinants of Health and Advancing Health Equity

PREPARED FOR THE OFFICE OF ENGAGEMENT AND TRAINING (OET) NATIONAL LIBRARY OF MEDICINE

> PREPARED BY HEALTH, ENERGY, AND ENVIRONMENT OAK RIDGE ASSOCIATED UNIVERSITIES

Contents

AGEN	NDA
ATTE	NDEES
I.	Welcome and Meeting Opening
II.	EnHIP Member Introductions and Institutional Updates
III.	Application of the <i>Public Health Exposome</i> Framework and Analytics Towards Advancing Health Equity
IV.	The Role of Academic and Community Partners in Leveraging Health Equity 17
V.	EnHIP Special Issue Journal of Environmental Healthcare, Science, and the Humanities
VI.	Voices For Our Fathers Legacy Foundation: Information Research in Application Adherence to Protocol
VII.	2021 EnHIP Outreach Awards Presentations
VIII.	EnHIP Closed Sessions
IX.	Report from NLM Director
X.	Changes in Work Environment Post-COVID-19 EnHIP Members Group Discussion. 33
XI.	Vanquishing Disparities in Healthcare and Health
XII.	Recognition Ceremony
XIII.	Closing Remarks
XIV.	Pictorial Highlights
XV.	Directory of Guest Speakers
XVI.	Speaker Biographies
XVII.	EnHIP Member Institutions
XVIII	. EnHIP Executive Committee

NATIONAL LIBRARY OF MEDICINE ENVIRONMENTAL HEALTH INFORMATION PARTNERSHIP MEETING

A Shared Mission: Using Data to Reduce the Social Determinants of Health and Advancing Health Equity Louis Stokes Health Sciences Library at Howard University March 30–31, 2023 Patricia Matthews-Juarez, PhD, Presiding

AGENDA

Thursday, March 30, 2023 Howard University Louis Stokes Health Sciences Library 4th Floor Meeting Room

8:30 a.m8:45 a.m.	Registration
8:45 a.m9:00 a.m.	Meeting Opening and Welcome Patricia Matthews-Juarez, PhD EnHIP Chair, Meharry Medical College
	Rueben C. Warren, DDS, MPH, DrPH, MDiv EnHIP Senior Scientific Advisor
	Alla Keselman, PhD EnHIP Program Lead, Acting Chief, Office of Engagement and Training National Library of Medicine
	Fatima M. Mncube-Barnes, EdD, MPH, MSIS Executive Director, Louis Stokes Health Sciences Library Howard University
9:00 a.m10:00 a.m.	EnHIP Member Introductions and Institutional Updates Facilitated by Rueben C. Warren, DDS, MPH, DrPH, MDiv
10:00 a.m.–10:20 a.m.	Application of the <i>Public Health Exposome</i> Framework and Analytics Towards Advancing Health Equity Darryl B. Hood, PhD Professor and Dean's Fellow Division of Environmental Health Sciences, College of Public Health The Ohio State University
	Discussion and Q&A Facilitated by Gabriel Ibarra-Mejia, MD, PhD University of Texas at El Paso
10:20 a.m.–10:50 a.m.	The Role of Academic and Community Partners in Leveraging Health Equity John W. Gilford, PhD Regional Health Administrator United States Department of Health and Human Services Office of the Assistant Secretary for Health, Region IV Roshunda Ivory, DrPH, CHES Minority Health Analyst

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	United States Department of Health and Human Services Office of the Assistant Secretary for Health, Region IV
	Discussion and Q&A Facilitated by Sandra Harris-Hooker, PhD Morehouse School of Medicine
10:50 a.m11:05 a.m.	BREAK
11:05 a.m11:30 a.m.	EnHIP Special Issue Journal of Healthcare, Science, and the Humanities Patricia Matthews-Juarez, PhD Rueben C. Warren, DDS, MPH, DrPH, MDiv
	Discussion and Q&A EnHIP Membership
11:30 a.m11:50 a.m.	Voices For Our Fathers Legacy Foundation: Informing Research in Application Adherence to Protocol Lillie Head President, Voices For Our Fathers Legacy Foundation, Inc.
	Discussion and Q&A Facilitated by Rueben C. Warren, DDS, MPH, DrPH, MDiv
11:50 a.m12:50 p.m.	LUNCH
12:50 p.m.–1:50 p.m.	2021 EnHIP Outreach Awards Presentations Milton Morris, PhD Benedict College
	Maletta Payne, MLIS Southern University at Baton Rouge
	Gabriel Ibarra-Mejia, MD, PhD University of Texas at El Paso
1:50 p.m.–3:00 p.m.	Social Network Analysis Focus Groups (*Closed session to EnHIP members only) Facilitated by Kelli Bursey, MPH, CHES DeBran Tarver, PhD, MPH Oak Ridge Associated Universities
3:00 p.m3:10 p.m.	BREAK
3:10 p.m4:00 p.m.	EnHIP Succession Planning (*Closed session to EnHIP members only) Facilitated by Kelli Bursey, MPH, CHES
4:00 p.m4:10 p.m.	Day 2 Overview and Adjournment Patricia Matthews-Juarez, PhD
4:10 p.m.–5:10 p.m.	Health Sciences Simulation Center Tour or Networking Clinical Skills Simulation Center, Seeley Mudd Building, Room 226
5:10 p.m.	Shuttle Return to Hotel

<u>AGENDA</u> Friday, March 31, 2023 Howard University Louis Stokes Health Sciences Library 4th Floor Meeting Room

8:30 a.m8:45 a.m.	Registration
8:45 a.m.–9:00 a.m.	Welcome and Introductions Patricia Matthews-Juarez, PhD EnHIP Chair, Meharry Medical College
	Rueben C. Warren, DDS, MPH, DrPH, MDiv EnHIP Senior Scientific Advisor
	Gina S. Brown, PhD, MSA, RN, FAAN Chief Servant and Dean, College of Nursing and Allied Health Sciences Howard University
	Introduction of NLM Director Alla Keselman, PhD EnHIP Program Lead, Acting Chief, Office of Engagement and Training National Library of Medicine
9:00 a.m9:30 a.m.	Report from NLM Director Patricia Flatley Brennan, RN, PhD Director, National Library of Medicine
	Discussion and Q&A Facilitated by Rueben C. Warren, DDS, MPH, DrPH, MDiv
9:30 a.m.–9:45 a.m.	EnHIP Group Picture Justin Knight Howard University Photographer Lobby of the Louis Stokes Health Sciences Library
9:45 a.m10:15 a.m.	Meet and Greet with NLM Director 4th Floor Meeting Room
10:15 a.m.–10:55 a.m.	Changes in Work Environment Post-COVID-19 EnHIP Members Group Discussion Facilitated by Judith Mazique, JD, MPH Texas Southern University
10:55 a.m11:10 a.m.	BREAK
11:10 a.m11:30 a.m.	Vanquishing Disparities in Healthcare & Health Robert O. Valdez, PhD Director, Agency for Healthcare Research and Quality (AHRQ)
	Discussion and Q&A Facilitated by Robert Copeland, PhD

Howard University

11:30 a.m.–11:50 a.m.	Recognition of Paul Tchounwou, PhD Scientist and Environmental Health Researcher Dean of Morgan State University's School of Computer, Mathematical, and Natural Sciences
	Presenter: Milton Morris, PhD Benedict College
	Recognition of Carmen Vélez Vega, PhD, MSW Professor at the Doctoral Program in Social Determinants of Health Social Sciences Department, School of Public Health University of Puerto Rico Medical Sciences Campus
	Presenter: Diógenes Herreño-Sáenz, PhD University of Puerto Rico Medical Sciences Campus
11:50 a.m12:00 p.m.	Honoraria & Travel Reimbursement LaFrancis Gibson, MBA, MPH, CHES Health Education Specialist Section Manager Oak Ridge Associated Universities
12:00 p.m12:15 p.m.	Closing Remarks Patricia Matthews-Juarez, PhD EnHIP Chair, Meharry Medical College
	Rueben C. Warren, DDS, MPH, DrPH, MDiv EnHIP Senior Scientific Advisor
	Alla Keselman, PhD EnHIP Program Lead, Acting Chief, Office of Engagement and Training National Library of Medicine
12:15 p.m.	Shuttle Return to Hotel

PROCEEDINGS OF THE ENVIRONMENTAL HEALTH INFORMATION PARTNERSHIP (EnHIP) MEETING March 30–31, 2023

The Environmental Health Information Partnership (EnHIP) convened on March 30, 2023, at 8:45 a.m. Eastern Time. The annual EnHIP meeting adjourned on March 31, 2023, at 12:15 p.m. The theme of the meeting was "*A Shared Mission: Using Data to Reduce the Social Determinants of Health and Advancing Health Equity.*"

EnHIP Chair, Patricia Matthews-Juarez, PhD, Professor, Department of Family and Community Medicine and Senior Vice President, Office of Strategic Initiatives and Innovation, Meharry Medical College, presided.

ATTENDEES Representatives from Participating Institutions *Denotes EnHIP Executive Committee Members

Dr. Patricia Matthews-Juarez, Meharry Medical College*

Dr. Rueben C. Warren, Morehouse School of Medicine*

Dr. Seth Ablordeppey, Florida A&M University

Dr. Robert Copeland, Howard University

Dr. Martha Earls, Xavier University of Louisiana

Dr. João Ferreira-Pinto, University of Texas at El Paso

Dr. Tamar Ginossar, University of New Mexico

Dr. Clem Guthro, University of Hawai'i at Mānoa

Dr. Diógenes Herreño-Sáenz, University of Puerto Rico, Medical Sciences Campus

Dr. Sandra Harris-Hooker, Morehouse School of Medicine

Dr. Gabriel Ibarra-Mejia, University of Texas at El Paso

Dr. Judith Mazique, Texas Southern University

Dr. Fatima M. Mncube-Barnes, Howard University

Dr. Arlene Montgomery, Hampton University

Dr. Milton Morris, Benedict College

Ms. Maletta Payne, Southern University and A&M College

Dr. Aramandla Ramesh, Meharry Medical College

Dr. Cheryl Taylor, Southern University at Baton Rouge

Dr. Doris Withers, Medgar Evers College, CUNY

Speakers

Dr. Patti Brennan, Director, National Library of Medicine

Dr. John Gilford, Department of Health and Human Services

Dr. Darryl Hood, The Ohio State University

Dr. Roshunda Ivory, Department of Health and Human Services

Dr. Robert Valdez, Agency for Healthcare Research and Quality

Ms. Lillie Head, Voices For Our Fathers Legacy Foundation

Recognition Recipients

Dr. Paul Tchounwou, Morgan State University Dr. Carmen Vélez Vega, University of Puerto Rico

National Library of Medicine (NLM) Office of Engagement and Training (OET) Staff

Dr. Alla Keselman* Ms. Anne Altemus Ms. Blair Anton Mr. George Franklin Mr. David Nash

BLH Technologies, Inc. Staff

Mr. Adrian Campos Ms. Yamila El-Khayat

Oak Ridge Associated Universities (ORAU) Staff

Ms. LaFrancis Gibson* Ms. Kelli Bursey Ms. Regina Renfro Dr. DeBran Tarver

Annual Meeting Guests

Ms. Anne Altemus, NLM Ms. Blair Anton, NLM Dr. Gina S. Brown, Howard University Mr. George Franklin, NLM Ms. Cynthia Gaines, NLM (Retired) Ms. Shannon Jordan, Department of Veterans Affairs Mr. David Nash, NLM Dr. Angeles Acosta Rodriguez, El Maestro Hospital

I. Welcome and Meeting Opening

Chair: Dr. Patricia Matthews-Juarez opened the meeting by thanking the members of EnHIP and expressing gratitude for the continuing commitment to environmental health information. She expressed her delight to be able to meet in-person for the first time since the pandemic began. She introduced the theme of the annual meeting "A Shared Mission: Using Data to Reduce the Social Determinants of Health and Advancing Health Equity," and noted that, while achievements have been made, there is still work to do.

Scientific Advisor: Dr. Rueben Warren greeted the members and said it was empowering to see everyone in person. He welcomed the new attendees and said that they may be new to the partnership, but if they are a part of this effort and movement, then they are not new to the EnHIP mission. Dr. Warren noted that there could not be a better place to have this conversation than at Howard University, Louis Stokes Health Sciences Library, named after Congressman Louis Stokes, whose contributions to health equity aligned with the foundation of EnHIP's mission. He closed by thanking Dr. Matthews-Juarez for her long-standing work with EnHIP, as well as the attendees who came in-person for the first post-COVID-19 pandemic meeting.

Program Lead: Dr. Alla Keselman, Acting Chief of the Office of Engagement and Training, greeted the members and shared her delight at being able to meet the representatives in person. She thanked those who could travel to the host site and the participants who joined online. Dr. Keselman introduced herself as the new program lead for the EnHIP partnership and the acting chief of the Office of Engagement and Training (OET) at NLM. She explained that OET is the division of NLM that provides NLM products and services to consumers, with a concerted effort to connect to communities that are affected by health disparities and the professionals that serve them. She added that, as EnHIP was the flagship program of this effort, she appreciated each member for their work. Dr. Keselman then introduced staff from NLM and NLM contracts that were also in attendance in person and virtually and closed with thanking Howard University for hosting the meeting.

Howard Representative: Dr. Matthews-Juarez introduced Dr. Fatima Mncube-Barnes as the former associate vice president of instructional technologies and assistant professor in the School of Graduate Studies and Research at Meharry Medical College and current executive director of

the Louis Stokes Library. She added that Dr. Mncube-Barnes has participated in the work that EnHIP has done over the last 12–13 years.

Dr. Mncube-Barnes greeted the EnHIP members and guests and thanked them for attending the annual meeting on Howard University Campus. She encouraged members to direct any questions about the library to Dr. Copeland or to her. She encouraged members to attend the Health Sciences Simulation Center tour at the end of the day.

II. EnHIP Member Introductions and Institutional Updates

Presenter: EnHIP Members

Facilitator: Rueben C. Warren, DDS, MPH, DrPH, MDiv, EnHIP Scientific Advisor

Dr. Warren facilitated this session in which representatives introduced themselves and their member schools and shared updates about their institutions and any institutional personnel changes.

The updates are presented below:

Morehouse School of Medicine: Dr. Sandra Harris-Hooker, senior vice president of external affairs and innovation, announced the new Genomic Medicine Institute that will be spearheaded by Dr. Melissa Davis. Dr. Davis comes to Morehouse School of Medicine from Weill Cornell Medicine, and she will be bringing a team with her for the project. Dr. Harris-Hooker also noted that in 2022 the Novartis Foundation funded Beacon of Hope, an initiative to create Research Centers of Excellence at Morehouse, Meharry, Howard, and Charles Drew. The second initiative is the creation of the Clinical Trials Centers of Excellence, to have more African Americans participate in clinical trials. In addition to the Centers of Excellence, Novartis also will create an Impact of Climate on Health program, which focuses on environmental changes that affect the populations that EnHIP serves. Novartis is bringing a health data validation process that emerges with new health technologies to Morehouse School of Medicine. Dr. Harris-Hooker invited members to reach out to Morehouse School of Medicine regarding these initiatives, especially the Impact of Climate on Health.

Howard University: Dr. Robert Copeland, associate professor and chair of the Department of Pharmacology, welcomed members to the Howard University Campus. He reiterated Dr.

Mncube-Barnes' invitation to tour the Health Sciences Simulation Center and the campus during the visit.

Medgar Evers College, CUNY: Dr. Doris Withers, professor emeritus, announced that she is still the EnHIP representative as a new representative has yet to be designated. She noted the addition of a new college president, who is the first female president of the college, as well as a new provost, dean of the school of science, and a new chair in the department of biology. Dr. Withers also noted that the Department of Environmental Science finished the investigation of local soil content and found and reported on the toxic materials present. The college has a center for community advocacy that will be working with the public to report on this issue. In another project that is getting much deserved attention in Brooklyn, the school of nursing aims to increase the public's awareness and education about breast cancer related to environmental factors. On a personal note, Dr. Withers said she was interested in genomics when it was first getting its foothold and, through EnHIP, she was able to bring genomic science to the biology department and to the community through school sponsorship based on EnHIP member support. She also mentioned that she is currently working on genetic genealogy for the Afro-American Historical and Genealogical Society.

Texas Southern University: Dr. Judith Mazique, faculty, announced a new president, provost, and dean that were all appointed during COVID-19. She indicated that more about these changes will be shared on Day 2 in the session on how COVID-19 has changed the work environment (See "Changes in Work Environment Post-COVID-19 EnHIP Members Group Discussion").

Meharry Medical College: Aramandla Ramesh, associate professor of environmental toxicology, announced the new Institute for Health Disparities, Equity, and Exposome headed by Dr. Paul D. Juarez. The institute brings together multiple centers for an integrated approach. The centers include the Health Disparities Research Center of Excellence, Center for Health Workforce Health Development, Center for the Study of Social Determinants of Health, National Center for Medical Education Development and Research, Center for Chronic Disease Management, National Center for Community Mapping, and Center for Global Health Equity. The Institute will cater to researchers and policymakers from other historically black colleges and universities (HBCUs), state, and federal agencies. The Institute is looking forward to

collaboration, so any interested EnHIP members should email Dr. Matthews-Juarez or Dr. Paul D. Juarez.

Dr. Matthews-Juarez added that the college is also working with ImPact Tribal Consortium and the Southern Plains Tribal Health Board. The organizations bring together 40 tribes located in Oklahoma, California, Washington, and Oregon. The Southern Plain Tribal Health Board has an initiative to train community health workers to work in primary care, mental health, and dental care in communities. Dr. Matthews-Juarez is a consultant to the team based on her role as the chair of the ImPACT Tribal Consortium at Meharry.

Benedict College: Dr. Milton Morris, director of the environmental health science program, is the recipient of the Joe Beck Education Contribution Award, which he won for his efforts that stemmed from work he did through EnHIP. He also noted that the environmental health science program will undergo their fifth re-accreditation in April. Dr. Morris also announced that the college would be getting a school of nursing and will be adding degrees in pre-pharmacy and emergency health training.

Southern University and A&M College, Baton Rouge (SUBR): Ms. Maletta Payne, the emerging technologies and library liaison for the school of nursing, announced an administration change with a new chancellor at SUBR. She reported on new initiatives that the college was working on to build better collaboration on campus, which include managing open educational resources, building and sustaining the history of HBCUs by investing in the institutional repository, and creating more digital literacy initiatives.

University of Hawaii at Mānoa: Dr. Clem Guthro, University Librarian, announced that the university was recruiting a new dean for the medical school, and has hired a new dean for the school of public health who will start June 1. He added that most of the work done in the school of public health and the medical school centers around the health disparities of native-born Pacific Islanders.

Xavier University of Louisiana: Dr. Martha Earls, director of both the drug information center and the continuing education program, announced that the university is currently doing a mock survey for the Accreditation Council for Pharmacy Education (ACPE) for re-accrediting the college of pharmacy. Xavier University is also looking forward to its 100-year anniversary

celebration in 2025. Dr. Earls noted that in February the school held its 16th annual health disparities conference with over 600 attendees. The theme of the conference was "Public Health Transformation to Advance Health Equity." She also noted that the university, in partnership with Ochsner Health Systems, will be opening a medical school.

University of Texas at El Paso (UTEP): Dr. Gabriel Ibarra-Mejia, assistant professor in public health sciences, announced that the primary representative asked him to attend the meeting and prepare for a more active role in EnHIP considering he works in the environmental health sciences. Dr. Ibarra-Mejia shared aspects of his background in practicing medicine for 30 years prior to coming to UTEP, and that his residency was in occupational medicine because he was interested in toxicology. He holds a PhD in environmental engineering and has combined his education to focus on environmental and occupational health. Dr. Ibarra-Mejia shared the fact that El Paso has a climate much different than the rest of Texas and is the only city in Texas that must report cases of coccidioidomycosis. He explained that dust storms are prevalent in El Paso, and that two groups have formed to gather data and research dust exposures that create or aggravate chronic conditions. The first is a multi-interdisciplinary group called Dust and Health, and the second exists from the uptick in coccidioidomycosis cases that is comprised of physicians, epidemiologists, geologists, climatologists, and engineers to gather additional data. He asked that any EnHIP members interested in collaboration to reach out to him. For institutional updates, Dr. Ibarra-Mejia announced the new president, Dr. Heather Wilson, who was hired in 2019.

Florida A&M University: Dr. Seth Ablordeppey, professor of medicinal chemistry in the college of pharmacy, was asked by the representatives of Florida A&M University to attend the meeting. He noted that the current president, Dr. Larry Robinson, is an environmentalist who served in government under the Obama Administration and is extremely interested in what is happening with EnHIP. Dr. Ablordeppey serves as chair for the National Chemical Society which focuses on diversity, equity, inclusion, and respect. They are currently working on gaining more supporters for this effort and have decided that for any activity that is created, the focus should not be on what it can do for the committee, but what the committee can do for the supporters.

University of New Mexico: Dr. Tamar Ginossar, communication professor, introduced herself as a new representative to EnHIP and noted that her focus is environmental health communication, particularly with community engagement and health disparities. She announced that the university was recently funded for a P30 that they call NM-INSPIRES to support investigators conducting basic and translational research studies that address the needs and concerns of New Mexico communities related to environmental health issues.

University of Puerto Rico: Dr. Diógenes Herreño-Sáenz, professor in the toxicology and pharmacology department, announced that the school has a new president, the former chancellor, and is currently looking for a new chancellor.

Dr. Matthews-Juarez closed the introductions by sharing the importance of EnHIP in creating ideas. For example, attending an EnHIP meeting in 2013 led to the establishment of the Health Disparities Center of Excellence examining environmental exposures through the lens of the exposome. The Institution is composed of twelve (12) centers and 30 million dollars. She reminded attendees that attending EnHIP meetings can create a spark for exciting opportunities and serves as an invaluable opportunity to network.

Dr. Warren concluded this session by stating that the member school introductions and updates give historical information not only what individuals are doing, but the institutions they represent. He said the issue of the environment and its impact is underappreciated, its additional impact on communities of color has been ignored, and that the environmental justice movement grew out of that. He asked that representatives bring their expertise to this forum and find common issues and solutions to work towards.

III. Application of the *Public Health Exposome* Framework and Analytics Towards Advancing Health Equity

Presenter: Darryl B. Hood, PhD, The Ohio State University **Facilitator:** Gabriel Ibarra-Mejia, MD, PhD, University of Texas at El Paso

Dr. Ibarra-Mejia introduced Dr. Hood as a professor, Dean's Fellow, and Environmental Public Health Neurotoxicologist in the Division of Environmental Health Sciences in the College of Public Health at The Ohio State University (OSU). Before joining OSU, he served on the faculty at Meharry Medical College for 20 years and led the most successful minority grant initiative (S11) sponsored by the National Institute of Environmental Health Sciences (NIEHS). This initiative was known as the "Advanced Research Cooperation in Environmental Health" (ARCH) Program. The research contributed to the scientific database that the U.S. Environmental Protection Agency (EPA) used to reassess the levels of polycyclic aromatic hydrocarbon emissions from smokestacks resulting in public policy changes that will serve to decrease the adverse health effects associated with environmental exposures. Dr. Hood recently received an EPA STAR Award to continue his work as the co-architect of the novel *Public Health Exposome* framework and analytics with an environmental justice lens. His work is focused on the high-risk and vulnerable underrepresented minority census tracts of Columbus, Ohio. He serves on the NIEHS National Advisory Environmental Health Sciences Council and the Children's Environmental Health Committee as well as the Standing Committee on Emerging Science for Environmental Health Decisions at the National Academies of Sciences, Engineering, and Medicine.

Highlights: Dr. Hood set the stage for his presentation by describing environmental health impacts in Columbus, Ohio and the type of research he would discuss. Additionally, he explained that Columbus, Ohio was a mostly African American city due to the civil rights movement as well as gentrification outside of the city. His presentation centered on a project he called the Columbus Early Intervention Study. What the project aimed to do was study the health disparities of the inner-city areas, in which they found many health outcomes prevalent in certain census tracts; it was discovered that Columbus had the 2nd worst nationally ranked life expectancy at birth, pointing at Columbus having several high-risk health areas and vulnerable communities. This discovery was the impetus for developing the Public Health Exposome framework, which is a socioecological paradigm that looks at relationships between variables and factors in certain census tracts that occur from conception to death. It took eight years for the framework development group to compile all available data from the environment, acquire domain knowledge, and incorporate combinatorial algorithms and supercomputer platforms to create the Public Health Exposome Database, which now has over 70,000 variables and is used to understand health disparities in the context of the exposome. He explained the area code determines most disparate health outcomes by saying "place" matters about healthcare disparities, and where you are determines the exposures to chemicals and non-chemical stressors. The framework and analytics are used to recontextualize population level, community level, and

individual level outcomes. The framework has been used to study cardiovascular diseases, diabetes, cancer, low and pre-term birth weight, and developmental learning in pre-Kindergarten children.

Dr. Hood showed a slide of the socio-demographic data from two census tracts: Franklin County in Columbus and the other relative to Ohio at large. The indicators show health disparities in Columbus. The framework demonstrated the data as spatially and temporally aligned. The utility of the framework was demonstrated successfully through beta testing using a sample from southern cohort communities, which are comprised of 85,000 people: 50,000 of which are African American. Using the framework, one can build a strategy to deliver public health and policy interventions.

Dr. Hood's presentation focused on PM2.5 (particulate matter, 2.5 micrometers and smaller) as a proxy for some of the diseases seen in the population in Columbus. Using public health assessment (PHA) data from the Ohio Environmental Protection Agency (EPA) and PM2.5 data from satellites for Ohio's 88 counties, the research illustrated how variables in relation to diseases and places had related nodes in a data network. This finding demonstrates that it is possible to segment and partition social determinants of health. Using graph theory, scientists can create a path to predicting trajectories of vulnerable communities toward chronic disease outcomes. Conclusion: This study, which is published in The Science of Health Disparities Research, demonstrates that public universities, public health departments, and state agencies can work together to address concerns of individuals who live in vulnerable communities and can promote population health and health equity.

Question: (Dr. Warren) What do you do with the information from the framework?

Answer: In Columbus, we are developing policy boundaries using the Northeast Ohio Black Health Coalition to assist. You must approach this from a policy standpoint and involve area commissioners, council members, and those that are a part of the stakeholder group.

Question: (Dr. Morris) Can you tell us why the PM2.5 is a particular stressor?

Answer: We think the PM2.5 is a proxy because, if you look at the gradient of the PM2.5 across the 12-state region, you see it is concentrated in areas with heavy industry, and traffic-related

pollution can cause elevated levels of PM2.5. Evidence-based health disparities research has shown that PM2.5 is an indicator in cardiometabolic disease, diabetes, cancers, and now developmental learning for children.

IV. The Role of Academic and Community Partners in Leveraging Health Equity

Presenters: John W. Gilford, PhD and Roshunda Ivory, DrPH, CHES, United States Department of Health and Human Services, Office of the Assistant Secretary for Health, Region IV **Facilitator:** Sandra Harris-Hooker, PhD, Morehouse School of Medicine

Dr. Sandra Harris-Hooker opened the session by highlighting the need to increase the intersectionality of academia and community as a vital role in enhancing health equity. Bringing into realization our vision of health equity, we must merge the research, knowledge, and expertise at the academic level with the real-world experiences at the community level.

Dr. Gilford, Regional Health Administrator for the U.S. Department of Health and Human Services (HHS), Office of the Assistant Health Secretary (OAHS), leading the HHS effort in Region IV in the areas of prevention, preparedness, and agency-wide coordination, and Dr. Gilford's co-presenter, Dr. Ivory, the Region IV Health Analyst, work with state, tribal, local, and community stakeholders to bring intersectionality as a process for eliminating health disparities and advance health equity in minority and underserved populations. Region IV covers Alabama, Georgia, Florida, Kentucky, Mississippi, and North Carolina, South Carolina, and Tennessee.

Highlights: Dr. Gilford began with a brief overview of the Region IV office under OAHS, which falls under the office of the health secretary. The regional health operations consist of several key public health offices. The Office of Regional Health Operations (ORHO) promotes the advancement of public health and safety by connecting people to local partners and establishing networks providing public policy and programming recommendations that best address the needs of the population. The Regional Office supports and promotes HHS national initiatives, provides strategic guidance and technical assistance to state, territorial, tribal, and local health leadership to promote health outcomes and eliminate health disparities.

Region IV demographics cover eight (8) southern states including 769 counties and six (6) federally recognized tribal nations, making Region IV the largest of the 10 regions under ORHO. Due to Region IV demographics, it faces many more challenges in terms of public health outcomes that disproportionately affect underserved communities, and several climate-related hazards including excessive heat and hurricanes. The region has prioritized four areas to focus on for the current fiscal year: increasing access to care, improving mental health, advancing environmental justice, and supporting harm reduction strategies.

Dr. Gilford stated that the constant focus of the ORHO is achieving health equity. The Office of Disease and Health Promotion developed "Healthy People" which is an initiative that focuses on data-driven national objectives to improve the health and well-being of the next decade. The most recent version of this initiative is "Healthy People 2030," which uses a place-based framework that outlines the five key areas of social determinants of health: health care access and quality, neighborhood and built environments, social and community context, economic stability, and education access and quality.

Dr. Gilford's office's approach to working with communities considers the relationship of environmental justice with public health and human services programs and policies. He illustrated the importance of that relationship, outlining the participants and health and human services programs that are particularly affected by environmental justice and areas where these programs can help mitigate the effects of environmental issues including climate change. His office strives to better understand communities they serve by participating in discussions, examining data, and exploring with partners ways to best incorporate environmental justice.

Region IV has established an environmental council of federal partners represented in the region and speakers who are subject matter experts with knowledge on health equity. The council works to connect agencies working in environmental justice and environmental health and to pinpoint issues of concern. The council meets with community leaders to identify needs and health priorities, and meets with federal, tribal, state, local, and community entities to plan, protect, respond, and adapt to health issues. Dr. Gilford indicated how social, cultural, and environmental factors impact a wide range of critical areas of health, and research shows that community engagement is a fundamental element for addressing the issues. Dr. Ivory provided additional information on the shared agenda of Region IV regarding environmental justice as a priority and related presidential executive orders. The first executive order on environmental justice was signed in 1994, which directed federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority, low-income, and indigenous populations. It took 25 years for additional executive orders in environmental health, environmental justice, and equity to be signed. The second executive order was issued to track the climate crisis, creating a climate action plan and clean energy procurement decisions. The next order was in 2021, which directed the federal government to evaluate their policies and make necessary changes to advance racial equity and ensure underserved communities are properly supported. The most recent order seeks to create a government-wide initiative to promote diversity, equity, inclusion, and accessibility. Dr. Ivory said that, in response to the order signed in 2021, HHS has established the Office of Environmental Justice (OEJ), which is focused on environmental health disparities, underserved community impacts of environmental justice, and climate change effects on populations.

The College/Underserved Community Partnership Program (CUPP), Region IV's new partnership with a consortium of colleges and universities was described. CUPP supports underserved/overburdened communities by having students provide technical expertise to their communities and, in turn, receive course credits through capstone projects, field experience, or volunteer hours. The goal is to provide meaningful support to address legacy environmental and economic impacts while building the next generation of leaders with an awareness to meet community needs. Each regional program can provide technical assistance to about 20 underserved communities per year, so about 200 communities will be assisted nationwide. EnHIP members were invited to reach out to their regional office for more information.

Question: (Dr. Harris-Hooker) Can you tell us how we can partner with your office and gain support and funding?

Answer: Collaboration is our goal and focus, so we are always looking for opportunities to identify new partners to expand our reach and better serve the residents of Region IV. If there was anything we shared that you feel would make a good partnership, please reach out to us. As far as funding opportunities go, please sign up for the NIH Guide LISTSERV as that is where

those opportunities will be posted. To join Listserv, send an email to

LISTSERV@LIST.NIH.GOV with the text: subscribe REGIONIV with your name. A monthly newsletter goes out to the recipients and there is a section devoted to funding from HHS agencies and other agencies that HHS hears about. We are also working on increasing the capacity of states and community-based organizations so they can take advantage of the funding opportunities through the federal government. If you are interested, or if you have experience in grant writing or proposals and would like to partner with HHS, let us know that as well. Region IV is disproportionately affected by a lot of negative health impacts and outcomes; however, there are a lot of success stories as well and we are interested in hearing about innovative approaches and interventions at the community level that are effective. Let us know so we can work together to amplify that and get word out to other agencies and organizations that could benefit from it.

Question: (Dr. Withers) Are the activities done through Region IV unique to that region, or do the regions share in the exact activities?

Answer: Many of the regions share activities or engage in similar activities that are implemented differently based on the characteristics of the states in each region. The priorities we identified earlier are shared across all regions, although some regions may have added additional priorities based on their individual state needs. If you've heard something that is of interest to you from our presentation, but you are in a different region, please reach out and we'll get you in touch with your regional office.

Question: (Dr. Ablordeppey) What are some of the short-term assessments used to show that you are making progress in the region?

Answer: We look at a broad range of indicators related to health equity, and we like to look to the experts in that area, and you. We hold a health equity summit, and we use it as a vehicle for sharing information about programs, policies, and practices that have had success in addressing health disparities and advancing health equity. The focus of the summit is not just on the success itself, but also the level of evidence that supports success, and that helps determine the value it would have for the states within the region. Again, if this is something you have experience in or would like to work in, we'd certainly like to hear from you. This year's summit will focus on

measuring health equity; we want to know what the research is showing and the key indicators that show progress.

Feedback: (Dr. Harris-Hooker) At next year's EnHIP meeting, we should have a report about how we are partnering with a purpose.

V. EnHIP Special Issue Journal of Environmental Healthcare, Science, and the Humanities

Presenters: Patricia Matthews-Juarez, PhD, Meharry Medical College and Rueben C. Warren, DDS, MPH, DrPH, MDiv, EnHIP Senior Scientific Advisor

Highlights: Dr. Matthews-Juarez gave a brief overview of the special journal issue proposed. EnHIP members were invited to participate as editors, co-editors, authors, and peer reviewers. Environmental health, community science, and social justice content comes from current or recent projects on which EnHIP members have worked. The inclusion of early-stage investigators' work provides a means to promote their scientific endeavors. For example, Dr. Milton Morris published a retrospective report regarding the impact of the floods in South Carolina in 2018 from the perspective of environmental health science and the community. Dr. Matthews-Juarez encouraged members to be innovative about the approach they take for submitting to the Special Issue of the Journal.

Several EnHIP members commented on potential topics for the Special Journal:

- Dr. Morris described his EnHIP-funded project in which students were trained to present COVID-19 findings to 15,000 public housing residents and the housing authority. During this project, the students were able to network and disseminate COVID-19 information. He suggested this project could be one of the focus points of the journal.
- Dr. Carmen Vélez Vega, recipient of the EnHIP Recognition Award, said that she would like to hear from the voices of the members and the participants in the community with whom they work. Specifically, she suggested article content talking about the impact of EnHIP members' community engagement experience and research, and how that becomes a tool for empowerment in their community.

- Dr. Tamar Ginossar suggested her project, which is a new collaboration studying the increasing numbers of black lung disease in the Southwest, as well as the differences in black lung disease in the Eastern part of the country.
- Dr. Robert Copeland mentioned two student projects currently being presented: the environmental stress on people, particularly in minority neighborhoods, who work in tire manufacturing in Akron, OH; and food insecurity in Washington, DC.

Dr. Warren contextualized that the Journal of Healthcare, Science, and the Humanities is a peer-reviewed journal on PubMed[®]. He said that the peer review process could involve a number of EnHIP members as subject matter experts and the journal could perhaps include a subsection of student projects. Dr. Matthews-Juarez closed with asking the EnHIP members to send their names and emails so that she and Dr. Warren can reach out and close the loop on who would like to submit abstracts or serve as editor, co-editors, and other positions needed for the success of the journal. Also, it would be helpful if members would email a list of topics they would like to see in the journal.

VI. Voices For Our Fathers Legacy Foundation: Information Research in Application Adherence to Protocol

Presenter: Ms. Lillie Tyson Head, President of Voices For Our Fathers Legacy Foundation, Inc. **Facilitator:** Rueben C. Warren, DDS, MPH, DrPH, MDiv, EnHIP Senior Scientific Advisor

Dr. Warren introduced Ms. Head's presentation by noting that the United States Public Health Service Syphilis Study at Tuskegee on Black men was one of the most egregious injustices as it relates to human subject research. He noted that the history stating "subjects engaged in research" is a lie, because the men involved were not subjects, they were human beings, and it was not research. It started as a treatment program to treat syphilis, however due to funding cuts during the Great Depression it became a research program rather than a treatment program. The study began when the government realized the Tuskegee Institute had an excellent working relationship with the local community to improve the well-being of Black people in the South. Tuskegee Institute had a reputation of doing good for and with Black people, so the federal government took the Tuskegee name as the study's name to use that goodwill of the Tuskegee Institute for their benefit. When Dr. Warren retired from the Centers for Disease and Prevention (CDC) in 2009 to join Tuskegee University to direct the National Center for Bioethics in Research and Health Care. While he knew many descendants of the men who were in the study, he started working very closely with Ms. Lillie Head, the daughter of one of the men abused by the study. This was when he first heard the commitment of the descendant family members to create a legacy of information, and to transform their anger to justice, and their trauma to triumph.

Highlights: Ms. Head began her presentation with thanking the EnHIP Committee and members on inviting her to share the journey to transform the legacy of the "United States Public Health Service Study of Untreated Syphilis in the Negro Male at Tuskegee and Macon County Alabama (USPHSS Study)" and that the beginning of this transformation is to refrain from referring to it as the Tuskegee Study. She said that by placing "Tuskegee" at the beginning, we are transferring ownership, accountability, and responsibly to Tuskegee rather than where it belongs. Ms. Head pointed out that in the title of the Legacy Foundation they specifically capitalize the "For" as they are for their fathers, not of them, as they did not have voices at the time. She also thanked Dr. Warren for the work he did in helping to guide the Foundation in using their voices as descendants to transform the legacy of the so-called study.

Ms. Head noted that there were 623 men known to have been used in the study, but there could have been more. The CDC website and the Voices For Our Fathers website list 625 names, but two names are duplicates so it is unclear if they were the same person. That is part of the research that the Foundation is embarking on. Regardless of the number, these men were human beings who are part of a legacy that was left by the United States Public Health Service, which left the men as damaged after being treated like guinea pigs and left them uneducated and unable to seek medical attention. They were only used until their death, and the research written about the study contains no humanization of those men. After learning more about the study and finally being able to become empowered to do something about the study, we wanted to change that legacy. Ms. Head shared photos of some of the men affected by the study and spoke their names and their positions in the family. She reminded the group that these men loved and were loved, and not only were they abused by the federal government, but their families were mistreated, and their family legacy affected. Communities at large were shown as still being affected in the way they mistrusted vaccine information during the COVID-19 pandemic.

One of the pictures Ms. Head showed was of Charlie Pollard, who was the first to file a class action lawsuit once he realized what the study had done. She explained that, in 1972, the men found out what had happened, not because they were told (because the study was still going on at that time), but because of an article in the Associated Press. She said that only eight men were still living when the White House issued an apology in 1997.

Ms. Head said that the goal of the Foundation is to remember these men's legacy, honor their sacrifice, learn more facts, and reveal the truth, advocate for equity, eliminate existing racial overtones in health care, partner for change, and promote solidarity. In the fall of 2021, the chair of the Millbank Memorial Fund reached out to Ms. Head and admitted that they had played a part in the study by financing the autopsies and promising burial insurance for men who agreed to it upon their death. They offered what Ms. Head considered to be a sincere apology. She said that she worked through her feelings regarding this by remembering her father saying that it is better to forgive than to carry the burden of hatred, hostility, and resentment that will hold you down. When her father realized he was a part of the study, he said he could not do anything about what happened to him, but it would be up to the next generation to ensure it does not happen again. She asked the chair for a written apology to take to the board and for him to come to Tuskegee University and apologize. The Foundation partnered with Millbank to record and share interviews of families affected that continues today with multiple health care agencies and schools.

Ms. Head said that the Foundation is still looking for information regarding the women and children directly affected by the study, as well as the results of the so-called research pertaining to the blood and spinal fluid samples taken, autopsies, and what was learned from the study and how that was used. She also added that the Foundation has partnered with Meharry Medical College and Millbank Memorial Fund to find answers. The Foundation also partnered with California Association of African American Superintendents and Administrators to connect the study with an education organization as well as promote the COVID-19 vaccine.

Ms. Head closed by saying that she personally knew many of the men used by the study, and that none of the men who were used for the study deserved that type of treatment. She added that, if we allow for that narrative of their character to remain, then we are allowing the same injustice

done to them to remain. We must honor their legacy, tell their story, and humanize them. Ms. Head ended with the phrase "Science and research, without humanity, is deadly."

VII. 2021 EnHIP Outreach Awards Presentations

Benedict College

Presenter: Milton Morris, PhD, Benedict College

Dr. Morris began his presentation by noting that when COVID-19 became a pandemic, the EnHIP members were given an opportunity to receive an award for outreach, and he wanted the focus to be on educating particularly at-risk persons so that they could make informed decisions. Because Benedict College is a teaching college, he wanted to give the students the opportunity to participate. The project title was designated as "Using NLM Databases to Educate Minority Communities on COVID-19," and the primary goal of the project was to help disadvantaged public housing residents better avoid contracting COVID-19 and get their concerns about the virus addressed. He said the participating students were members of the Benedict College Student Environmental Health Association and were required to submit applications for their participation and an abstract of their expected presentation. Eight presentations were made and judged by Benedict College faculty who worked with and provided guidance, and the top three were professionally video recorded. The taped presentations were provided to Columbia Housing Authority management as an internal presentation to the authority's 15,000 public housing residents. Dr. Milton closed by sharing one of the student presentations developed with the video submitted as part of the project.

Southern University and A&M College (SUBR)

Presenter: Maletta Payne, MLIS, Southern University and A&M College (SUBR)

Ms. Maletta Payne introduced Dr. Cheryl Taylor, who joined virtually, to share the overview of the project. Dr. Taylor announced that the funding for the project allowed the SUBR team to debunk two myths: that librarians were limited to cubicles and desktop computers, and that African Americans are neglectful of their health. She added that, at the peak of the COVID-19 epidemic, the SUBR team's project was able to touch the hearts and lives of many people from the ages of 5–95 by distributing N95 masks and using three NLM databases to promote access to health information. The work that took place during the 2021 period of performance created such a movement that it is still being demonstrated today. Ms. Maletta Payne, project co-lead,

introduced the SUBR Outreach Award Project titled "Access to Health Information." The project was conducted by the SUBR NLM EnHIP Project Team, with Project Lead Dr. Cheryl Taylor at SUBR's John B. Cade Library. She noted the goal of the project was to disseminate information from targeted NLM websites and determine populations for outreach and collaborative partners. The NLM websites highlighted were DailyMed[®], LitCOVID, and MedlinePlus[®]. The populations determined for outreach were African Americans, and the collaborative partners involved were the Southern Heights Property Owners Association, Shiloh Missionary Baptist Church, Mt. Pilgrim Baptist Church, public librarians, senior citizens, health professionals, and HBCU alumni and students. Ms. Payne stated that the first step to expanding promotion of the Access to Health Information initiative was to utilize the John B. Cade Library website and Facebook page. Also, the library's newsletter was used to promote the health literacy training initiative. A handout was created that included QR codes to NLM websites and direct links. Ms. Payne noted that the LibGuide section of the library's website served as the landing page for promoting health literacy using a self-paced learning management system that included pre- and post-tests and trainings for the three targeted NLM online resources, and she also showed images from the training guides and modules. The project held four community in-person outreach events that included the dissemination of health information, health literacy, and masks. Ms. Payne showed images of the various events and added that the project did reach its goal. She then shared the evaluation, outcomes, and survey feedback. She announced that the library was awarded the 2020 Louisiana Timely Librarianship Award for the access to health information learning modules at the LOUIS Users Conference, which is a state conference for academic libraries. Due to the success of the project, the library was also granted a budget as part of the Louisiana Department of Health's "Future Minorities and Clinicians Project" which was funded one million dollars for a 2021–2023 period of performance.

University of Texas at El Paso

Presenter: Gabriel Ibarra-Mejia, MD, PhD, University of Texas at El Paso

Dr. Gabriel Ibarra-Mejia presented on behalf of Dr. João Ferreira-Pinto, who joined the meeting virtually. Dr. Ibarra-Mejia had asked Dr. Ferreira-Pinto how the project came to be and was told that the funds were used to increase health literacy in families and individuals in El Paso, Texas by creating a team of students and librarians to work with community partners to promote students educating their families. The project was titled "Developing Evidence-Based Research

and Health Literacy Capacity in UTEP Health Sciences Students for the Purpose of Disseminating Reliable Health-Related Information to Extended Family Members in a Historically Underserved Latino Border Community." He showed that low health literacy is consistently associated with poorer diabetes knowledge, with diabetes being the focus of the health literacy project. The students used the Ryan and Sawin's Individual and Family Self-Management Theory focusing only on diabetes and leaned on the academic librarians to enhance the health literacy competencies of the student health ambassadors. They also worked with the Border Alliance community health workers to learn how to use their knowledge and be able to appropriately speak to their extended family members regarding diabetes prevention. The project's objective was to recruit and train 10 student health ambassadors, implement the intervention, and evaluate those interventions. Students underwent six 3-hour training workshops that included health literacy and community health worker information, then used that information to build flipped lessons, talk templates, and custom research guides that helped to begin the conversation. The librarians and community health workers conducted their evaluations separately, including pre- and post-tests, student journal entries, and interviews at the end of the project.

Dr. Ibarra-Mejia also stressed the importance of the abbreviated time limit they had to do this project, with it beginning in July 2021 and ending December 2021. He also noted that, while the project scope should take more time, the students were able to successfully complete the project by learning and sharing diabetes information with their families. The finding that the student participants reported were positive change in personal and familial health awareness and behaviors, positive change in personal and familial diets during family dinners and holidays, increased personal health literacy, and successful help in engaging in important yet challenging conversations with family. The student-reported lessons learned included needing more guidance on conversation starters, wanting weekly meetings during the journaling period, getting clarification on the journaling process, and wanting more in-person sessions and opportunities to meet and network with more community health workers. The challenges found in the project were limited time, rushed recruitment, limited campus access due to parking restrictions, and COVID-19 restrictions because of their status as caretakers, living with family, and personal health issues.

Dr. Ibarra-Mejia concluded his presentation with lessons learned, which include not only recruiting participants that are Mexican, but those with different backgrounds; host in-person workshops for building rapport and networking; and conduct a qualitative analysis on the comments of student health ambassadors as well as family members.

VIII. EnHIP Closed Sessions

Facilitator: Kelli Bursey, MPH, CHES and DeBran Tarver, PhD, MPH, ORAU

Ms. Kelli Bursey and Dr. DeBran Tarver facilitated two focus groups that consisted of one hybrid group (mixture of online and in-person participants) and one in-person group only. The focus groups were conducted as an extension of data collected from the 2022 Social Network Analysis Partnership (SNAP) interviews to gather additional information to assess improvements, follow up on some interview comments, and elicit feedback to increase engagement throughout the year.

Afterward, Ms. Bursey facilitated a 60-minute EnHIP Succession Planning session where members were asked to provide feedback on developing processes and shaping the future of EnHIP to evolve the practices of inclusivity and transparency. Due to the nature of this closed session, guests and online participants did not participate in the discussion. Wishing to focus on the member-level contributions, OET asked the Chair and the Senior Scientific Advisor to refrain from joining the session.

IX. Report from NLM Director

Presenter: Patricia Flatley Brennan, RN, PhD, Director of the National Library of Medicine **Facilitator:** Rueben C. Warren, DDS, MPH, DrPH, MDiv, EnHIP, Senior Scientific Advisor

Dr. Keselman introduced Dr. Brennan as the director of NLM at the National Institutes of Health (NIH) and noted her achievements of holding a Master of Science in Nursing and a PhD in Industrial Engineering; as being an elected member of the National Academy of Medicine and a Fellow of the American Institute for Medical and Biological Engineering, the American Academy of Nursing, the American College of Medical Informatics, and the New York Academy of Medicine.

Dr. Brennan began her presentation by saying it is a gift to direct the largest biomedical library in the world, and that the word "library" is essential to what they do. NLM brings forward values

that are part of society, and because of what NLM is, it can move the data science agenda with the principles of libraries. She explained that the principles important to that are **inquiry** – the opportunity for a person to bring curiosity, inventiveness, and own framing of the world to the literature; **unsupervised search** – to have the ability to have what you are taking out of the library to not be scrutinized or politicized and be able to come with private questions and leave with positive answers; and to be **trusted** – to be fundamentally committed to making sure that everything that is held at NLM is not only open to everyone, but is trustable. She did add that even though it is trustable, it does not mean it is correct, because science is self-correcting and changes all the time. She also noted that we are seeing a threat to libraries today and the confounding of the sense of control and the imposition of personal values being held above the rights of society to know. NLM is working extremely hard to keep the library's values in place. The final concept of libraries that drives NLM is preserving the history of medicine as told through literature, audio/visuals, and data and ensuring it remains accessible for the future. Preservation requires that when we ingest information, we not only have a way to maintain it to allow concurrent access, but also know how to collect, organize, and present the information in ways that are relevant to society.

Dr. Brennan then summarized the NLM Strategic Plan of 2017 and its three critical pillars: to accelerate discovery and advance health through data-driven research; reach more people in more ways through enhanced dissemination and engagement; and build a workforce for data-driven research and health. She added that these pillars do not replace NLM's fundamental activities, but they guide NLM to make new investments.

Dr. Brennan announced that NLM was celebrating its 200th anniversary and preparing for the 3rd Century. NLM has moved to fully automated indexing of PubMed citations, which was a sixyear process. It was involved with the NIH Data Management Sharing Policy to require federally funded research, and the data generated from, be available as quickly as possible to everyone which promotes continuity in research. NLM was deeply involved with the OSTP Memo, which establishes that any federally funded research must remain freely accessible with no paywalls. NLM is preparing for the future in specific ways: participating in the Year of Open Science, which not only shows people what NLM has, but how they can learn what they need to from it. NLM will work with the Network of the National Library of Medicine (NNLM) to bring knowledge into the communities and to make the resources open and understandable to everyone; to renovate and create a renaissance among internal resources, particularly Library Operations whose job is to collect, connect, and curate information within the library; to advance commitment to diversity, equity, inclusion, and accessibility with the Racial, Ethnic, and Equity Plan (REEP) and the Intramural Research Program (IRP) Data Science Diversity interns which bring young people into the conversation, positioning NLM for a commitment to continuous innovation; and to establish new approaches to scientific communication that will include advances and updates to PMC (PubMed Central) Preprint Pilot, PubMed, and MeSH (Medical Subject Headings).

Dr. Brennan shared NLM advances in research. The first is in intramural research, in which one team studying protein folding showed that AlphaFold2 (protein structure prediction process) could be improved, which is valuable information for drug purposes. An NLM investigator is looking at how to create visual evaluation in the field, specifically in cervical imaging. Another investigator is working with natural language processing that will use computer processing to allow someone searching information in lay language to still get the answer quickly and correctly. The second is in extramural research, which supports work within communities around the country. NLM has invested in Stanford University's framework for the social impact of algorithms in health care; University of California Santa Barbara's Smart Bionic Eye, which is an artificial intelligence (AI)-powered artificial vision used for the treatment of incurable blindness; Short-Term Research Education Experiences, which is a summer program involving 12 students from around the country to bring people with deaf and communication disorders together and into the field of biomedical informatics; T15, which are the pre- and post-doc training programs; and the UNITE initiative, which focuses on eliminating structural racism by changing the policies that may inadvertently cause disparities, cultures that cause division, and incorporating structures to promote diversity in the professional workforce by building research capacities and minority-serving institutions (MSIs). Dr. Brennan also noted extramural research has a funding opportunity in biomedical informatics and data science, as well as funding to stimulate computational and statistical methods to enhance discovery from health data and support early-stage investigators.

Dr. Brennan added that the extramural research program also funds the NNLM which has six regions around the country. NNLM moved NLM engagement out of Bethesda and into the community and has funded various projects including the *All of Us* program, the NIH Community Engagement Alliance (CEAL) initiative, and the RECOVER initiative that researches COVID-19 to understand, prevent, and treat long COVID. Dr. Brennan then shared a video of how the extramural research program reached out into the community to empower youth with personal health records.

Dr. Brennan closed her presentation by sharing funding opportunities from NIH. The first is a partnership with communities that will see NIH moving from community-engaged research to community-led research which NIH is calling the ComPASS initiative. It has three critical pieces that include community-led health equity structural interventions, health equity research hubs, and a coordination center. She added that, while these pieces have already begun, there will be funding available under each one. The second focuses on the health effects of climate, and the new initiative looks at changes in climate, effects of climate change, the health impacts surrounding it, and interventions and strategies to build preparedness and prevention of diseases and illness. There are two funding opportunities; one open now through April 1, and the other is accepting applications until October 1. Dr. Brennan also shared that NIH's budget went up this year, and NLM's budget is 495 million dollars. She added that the library has grown because it is delivering and providing value to society.

Question: (Dr. Darryl Hood) MSIs are unintentionally disenfranchised by the NIH wanting to come together on issues like data management or a common data lexicon. Can you help navigate that between NIH and EnHIP?

Answer: The issue of common data elements is that when you hit the average you miss the unique, and we are working on how to balance that. We've been working on what we call Tier I, which are common data point elements that we need to know about everyone, and Tier II are elements that are unique to the researcher and unique to the environment. We are trying to make sure both are included in those conversations. In terms of the data structure, the ComPASS data core structure is specifically designed to produce best practices and resources, so that schools that are not used to collecting data do not have to start from scratch. The resources will be available more broadly than just the ComPASS program.

Comment: (Dr. Seth Ablordeppey) It is good to know that NIH is thinking about a lot of things that have been a problem for us for quite some time. One of the structural problems, that I do not know if NIH will be able to resolve, is that when we recruit people to work in MSIs, we do not have financial packages to give them when they come in to establish their research. And if they are writing proposals, they do not have access to resources that would get them research funding. This will continue in perpetuity if it is not resolved. If MSIs were to be given the same amount of money as other institutions, we would be able to give NIH the same results.

Response: NIH is a federal agency which precludes us from offering any award based on characterization of race and ethnicity. We have found ways of awarding institutions that are not as well funded. For instance, under the UNITE initiative, we are looking at capacity building in these schools by providing a different kind of investment. The FIRST initiative is designed to provide five faculty positions with start-up packages to places that would not routinely be able to provide it themselves. You should also tell your principal investigators to look at the KATZ award, which was set up two years ago and specifically forbids putting any preliminary data in the research. Because of this, the research plan is only your idea of what you are going to do moving forward and it is a way to counterbalance the problem of investigators who do not have start-up packages or funding to generate preliminary data and are not able to compete as well. We are still working on other initiatives and welcome your ideas on how we can better respond to the needs of your community. NIH recognizes that it has perpetuated structural inequities, and we are trying to work within the confines of the federal government to address this because we recognize that the culture of science must be the culture of society.

Question: (Ms. Lillie Head) Under intramural research, could you elaborate on improving culture?

Answer: That is where the REEP initiative is coming into play. Improving culture in an internal NIH business and the UNITE initiative was primarily designed to address the roots of structural racism at NIH where the dominant values of science are privileged and white. We heard people's stories and experiences through conversations and with the help of contractors we brought in to make people feel comfortable expressing themselves without their supervisor being present. Structural racism doesn't just impact African Americans, but Asian Americans as well as we found during these rounds of investigation. We are working on this but understanding and

improving culture goes together and we need to know where to target change and what is effective.

Comment: (Dr. Clem Guthro) Thank you for the strong emphasis on library values; that type of unbiased and private searching ability is critically important.

Comment: (Dr. Patricia Matthews-Juarez) I would like to take the time to thank you for an excellent presentation. The unique and exciting ideas and projects that can start at the community level with academic, community, and state institutions are highlighted in your presentation. It is important that the other 26 NIH institutes state clearly what it will take to move society forward as we look at the science. One of the structures they really need to look at is the peer review process. Until NIH changes the way that peer reviewers are selected, equitable reviews of applications from minority institutions will stay the same.

Response: The Director for the Center of Scientific Review has been on a mission to change the criteria because embedded in the criteria are racist, inadvertent health disparities and dismissiveness about different institutions. Regarding the NIH research grant reviews, we have over 38,000 research volunteers that we are grateful for, but we must work with them to open their eyes to the fact that just because it's not Harvard doesn't mean it isn't good. One way we can do that is to change the rules. Currently, peer review looks at five factors (innovation, significance, approach, investigators, and environment), but starting in January of 2024, environment will not be scored during the peer review and therefore will not be able to trump the quality of the research idea. The investigators will also no longer be a scoring factor. The innovation, the significance, and the approach will be scored, while environment and investigators will only be evaluated for adequacy.

X. Changes in Work Environment Post-COVID-19 EnHIP Members Group Discussion

Facilitator: Facilitated by Judith Mazique, JD, MPH, Texas Southern University

Highlights: Dr. Mazique opened the discussion by addressing that the changes that arose in a post-COVID-19 workplace were broad, and she would like for each representative to reflect on what they went through and the changes that occurred in their workplaces. She led the open discussion by posing questions to the group.

Question: How did COVID-19 negatively impact the workplace in general, and specifically how did it negatively impact your workplaces?

Answers:

- Dr. Clem Guthro: I moved to Hawaii in January of 2020 and started at my institution 10 weeks before the pandemic shut the campus down. It was difficult. For the first 10 weeks I got to know my staff at the library, but two years in I feel like I still didn't know the university or fellow deans. Because all the meetings switched to virtual, there were three screens of colleagues so you couldn't really differentiate who was who and who was talking. For someone new to that workplace, it was challenging to feel a part of a new organization. Zoom was extremely helpful in some ways, but it was also very prohibitive.
- Dr. Tamar Ginossar: At the University of New Mexico, we were impacted through the community. The Native American communities had the highest rate of morbidity and mortality statistically speaking. This trauma and loss affected our organization in terms of students. Our student population was impacted significantly by the isolation. Day-to-day in-person interactions resorted to screens, and their sense of belonging, ability to relate, and ability to thrive and succeed had reduced. Their mental health needs had increased, and our university was unable to meet them, whether through mental health services or other things we could do culturally, to engage in more in-person experiences.
- Dr. Gabriel Ibarra-Mejia: I do a lot of consulting with our partners to the south in Juarez, Mexico, and there are a lot of factories that employ more than 50% of the population. There was this work culture of belonging to the company and the co-workers and the people around you, and they were not laid off when COVID-19 hit, but they were given a 50% pay deduction to stay at home which affected the entire social fabric of the city; drug use and crime increased, and school dropout rates increased. Even today we are seeing high rates of turnover at companies because people felt like they do not belong because COVID-19 negatively affected the culture of work. At the university level, what I have identified is that the workforce is not as cohesive. We no longer share a laugh over coffee or chat in the halls – we do not feel that connection because we spent so long talking very mechanically over a screen.

- Dr. Seth Ablordeppey: At our college, much of what we do is about drug discovery and drug development. During COVID-19 all the labs were closed, so all the people with NIH funding had the money but could not deliver. From that point onwards, their ongoing research had been interrupted and graduate students who were supposed to graduate in five years were at risk of losing their stipend. I do not feel the college paid attention to this, and it continues to affect students in very adverse ways.
- Dr. Sandra Harris-Hooker: At the Morehouse School of Medicine, we did not shut down, we just moved to a hybrid model. But we started early getting the campus "COVID-ready" by bringing in all facility staff and cleaning at least three times a day and employing preventative measures. To get students in for their research, we set up alternate three-day schedules to reduce crowds. The community looked to us for their vaccinations, so we were set up to ensure they could come in and do that as safely as possible. The negative impacts were seen in the fear people exhibited over the unknown effects of COVID-19.
- Dr. Robert Copeland: At Howard we had zero planning for the pandemic. The dean called all the leadership for a special meeting on a Friday afternoon and said, "as of Monday morning, we will be shut down." At this point, I had never heard of Zoom, so I had to figure out how to teach a class over a weekend in which I was out of town. Howard University was shut down for almost a year in terms of 'no one in, no one out', and all doors were locked with badge access dismantled. We had a very steep learning curve. One thing to know about the university is that, in terms of class attendance and participation, students are not required to come to lectures, but it was mandatory that they come to small group and team-based learning sessions; out of 150 students, I was getting 15–20 students coming in for the lectures. When we completely shut down and moved to Zoom, the first day we opened virtual lectures I had 60 people show up. There was also a social aspect to it with the students chatting together before and after, especially in the small groups when there was a breakout session. Initially, we had exceptionally good test scores, but when students took the national board, we had a large failure rate.
- Dr. Doris Withers: Administrators and faculty at Medgar Evers College reached out to me during the pandemic. You must remember CUNY is a federation of colleges, and

while the colleges are complex, everything is controlled centrally when it comes to online instruction. When the colleges moved to virtual learning, we learned that all the instructors did not have the same level of computer skills. Another problem was that the administration was working from home, and it was often that you could not contact them. After the college opened classes back up, employees were on a 30%-time rotation, but it was not coordinated, so sometimes the college would be empty. The main problem was that our college funding is enrollment driven, and enrollment numbers were at an all-time low.

Dr. Milton Morris: At Benedict College, we had to make a lot of quick changes and action plans. For example, faculty had to receive training before we could teach the virtual courses. We used different technologies, especially learning management systems. Then we had to submit plans that met certain standards to ensure we could teach. When we were allowed to come back, everyone from administrators to students had to provide proof of vaccination, wear masks on campus, and exercise social distancing. Classrooms were changed and we even had one-directional pathways for walking in halls. In the program I direct, students are required to do internships, and the main internships were not allowed into those facilities, and that became very problematic for their coursework. We were able to make some adjustments, but there was just a great deal of change.

Question: How can your university prepare for future pandemics as a result of lessons learned from COVID-19?

 Dr. Gabriel Ibarra-Mejia: The University of Texas at El Paso learned to be prepared. When COVID-19 first hit, a lot of people saw it on the east coast and thought it would never make it to Texas. On top of that, the director of public health resigned as it hit Texas. The person who led the effort to respond to COVID-19 was the director of the fire department. So, we learned we were not prepared at all. We were not prepared for students to take online courses, and a lot of students did not have computers; if they did have a computer, they did not have a camera. Now, through funding, the university is prepared to give out loaners. The university also instituted periodical training for faculty to do HyFlex and hybrid courses. We have found that even now that the campus is open, students do not want to come back to the classroom and prefer online instruction.

- Dr. Doris Withers: At an institution like CUNY, we learned that central leadership needs to call each campus to assess what happened and how to improve the outcome. The central office cannot make the decision on their own because each campus is in different boroughs with varied sizes of student bodies. Policies need to be in place for future crises.
- Dr. Sandra Harris-Hooker: The Gates Foundation has Grand Challenges grant
 opportunities meant to foster innovation and solve key health problems. They just closed
 a series of grants in November, and one of them was for a simulation of what the
 government should have done with the COVID-19 pandemic and could do when the next
 pandemic happens. My thought was, what if we do that from an academic perspective?
 They did it in terms of readiness for the country, and we need that type of simulation in
 the academic setting.

XI. Vanquishing Disparities in Healthcare and Health

Presenter: Robert O. Valdez, PhD, Director, Agency for Healthcare Research and Quality (AHRQ) **Facilitator:** Robert Copeland, PhD, Howard University

Highlights: Dr. Robert Copeland introduced Dr. Robert Valdez as Director of the Agency for Healthcare Research and Quality (AHRQ), appointed in February 2022. Dr. Valdez was previously the Robert Wood Johnson Foundation (RWJF) Professor Emeritus of Family & Community Medicine and Economics at the University of New Mexico (UNM). From 1993 through 1997, Dr. Valdez served at the U.S. Department of Health and Human Services (HHS) as Deputy Assistant Secretary for Health (within the Public Health Service) and simultaneously as Director of Interagency Health Policy (at the Centers for Medicare and Medicaid Services). Before joining HHS in 1993, Dr. Valdez served as a Special Senior Advisor to the Clinton White House on healthcare reform. He chaired the Healthcare Reform Benefits Workgroup and was a member of the Analytic Modeling Workgroup. He served in the Office of Child Health for the Health Care Financing Administration during the Carter Administration. Dr. Valdez offered his appreciation for the invitation to speak with EnHIP, and he previously served as the EnHIP representative for the University of New Mexico. He acknowledged that we had just passed the 20th anniversary of the report "<u>Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care</u>" documenting that there were great disparities in our nation by race and ethnicity regarding treatment of people from racial and ethnic minority communities, which reflects structural racism. His agency has a unique role to play in this narrative, such that they are one of the four science agencies in the Department of Health and Human Services, along with the NIH, U.S. Food and Drug Administration (FDA), and CDC to address the issues outlined in the report. AHRQ focuses on the T3 work, which is how those discoveries made by biomedical science is necessary, it is not sufficient. The work of AHRQ is to figure out how to take those scientific discoveries and get them into the clinics. The agency is improving efforts to focus to the agency mission to disseminate new findings, treatments, and innovations and help healthcare systems implement them into standards of care. He listed three priorities for the agency that focus on the major areas that are affecting healthcare delivery:

- 1. The priority is to "Improve Healthcare Delivery System Resilience" and resilience, in this case, is the resilience to climate change and severe weather issues. He said that, in many of our communities, the only places that provide the kind of support and resources that our communities rely on are healthcare delivery settings, and, therefore, this is a special focus at the agency. He encouraged members to look at the AHRQ funding opportunities that focus directly on this issue.
- 2. The second priority is focused on improving the healthcare system's performance. For the past 22 years, in an annual report to Congress, the agency has described how well they have done in addressing the disparities that were noted in the unequal treatment report, and for 22 years there has been no progress. This was the catalyst for doing something transformative in the agency that deals with the fundamental problems in healthcare delivery systems. There are two areas the agency can contribute to, specifically by reducing fragmentation in the system.
 - a. **Decreasing fragmentation in hospitals**. The most visible fragmentation can be seen in healthcare delivery and digital healthcare as it is increasingly part of our

future. The pandemic allowed major gains in how digital healthcare was incorporated in healthcare delivery.

- b. **Realign financial incentives**. In many areas of care, standards of care must be improved, and assisting medical and other health societies to find the standard of care by making sense out of hundreds of clinical guidelines is critical. The aging society has a very unfriendly healthcare system, and an age-friendly healthcare system that recognizes the kinds of issues that patients bring to the clinic is necessary.
- 3. The third priority is reducing inequities in healthcare and assisting in establishing a standard of practice. A large part of the process is vanquishing racial bias and working with clinical support services and tools that have been purchased by healthcare systems and test AI to mitigate bias by providing data.
 - a. Vanquishing unequal treatment:
 - There is a lot of confusion about what race means, which is how structural racism persists. There is not a consensus in the scientific community and the public and, therefore, structural racism is maintained.
 - Social and behavioral scientists have concluded that race is a social construct, while biological and clinical scientists have not reached that consensus.
 - The public does not know what "structural racism" is, because there is not a single accepted definition. The Aspen Institute offers a useful definition of structural racism as "a system in which public policies, institutional practices, cultural representations, and other norms work in various, often reinforcing ways to perpetuate racial group inequity. It identifies dimensions of our history and culture that have allowed privileges associated with 'whiteness' and disadvantages associated with 'color' to endure and adapt over time."

In Dr. Valdez's view of vanquishing unequal treatment is about how we dismantle and transform these policies and institutional rules and regulations that fundamentally maintain structural racism and the differences in care that our communities see. An example of healthcare inequities is reflected in maternal deaths across educational levels because the experience of African

American women, regardless of educational level, suffer pregnancy-related deaths at two to four times the rate of white and Latinx/Hispanic people. This reveals the differences in equality and safety of care that people receive.

AHRQ documents annually the disparities in healthcare and the quality-of-care people receive and examine those by race and ethnicity. It also documents the high percentages of worsening quality of care measures experienced by racial or ethnic groups. Because the pandemic put stress on healthcare institutions and providers, many of the safety measures and protocols that had been put in place were eased. There is a need to rededicate ourselves to patient and provider safety.

The social determinants of health also factor into the vanquishing of health disparities. To figure out what is needed by community and what patients need who live in communities, we must identify and resolve the policies and programs that prevent individuals and families from receiving government assistance and financial support that would be necessary to maintain their well-being.

AHRQ has tried to set a goal of creating systems that value equality but adjust for an individual's equity needs. Being patient centered is understanding the specific social needs and other needs that may exist for care delivery to be most effective. Unless we listen to what the patients need and want, things will never improve.

AHRQ produces tools and guidelines available to clinicians and health systems to adopt and use to make their work more equitable. See link below: <u>https://www.ahrq.gov/sdoh/resources.html</u>

Conclusion: AHRQ is trying to understand what interventions work to vanquish unequal treatment in health care systems. Successful organizations are doing three (3) things:

- 1. Assessing entrenched practices and policies.
- 2. Engaging in internal and external systems changes recognizing that it is not just hospitals, but the interactions with others in the community.
- 3. Acknowledging structural barriers that compromise equity.

These are the elements of good interventions. AHRQ has recently put out a call for proposals to examine these interventions. The point is not just to say there is a difference in healthcare quality, but how to diminish and extinguish the differences.

AHRQ is interested in training the next generation of health science researchers who can help with that implementation work. For a long time, AHRQ supported training programs and training grants, and EnHIP members are encouraged to apply and encourage others to do the same.

Question: (Dr. Carmen Vélez Vega) Concerning the area in which you defined and studied the effects of racism, have you considered the use of colorism scales? Is that something that you would recommend when you are doing research and even when you are offering services?

Answer: A lot of my colleagues especially in sociology have been using phenotype for decades, and my Puerto Rican colleagues use a very different scale in race/ethnicity descriptions on the island than we do on the mainland. Quite honestly, there are a lot of different scales to use because we use these categories as social constructs that are reflective of the social stratification that exist in our communities. Almost always, the darker the skin pigmentation, the worse treatment and worse opportunities – it's the white privilege that people talk about that comes into play.

Question: (Dr. Copeland) Can you give more information on what you said about resilience, particularly resilience during COVID-19 and now that we are moving into post-COVID-19?

Answer: When I was talking about resilience, I was talking about creating a resilient healthcare system in the face of climate change. However, resilience in the face of structural racism should be addressed as part of vanquishing unequal treatment. We need to be able to create and assist institutions that our communities rely upon when we can predict there will be ever-increasing weather events. For example, we did a study looking at heat strokes and other heat events that drive individuals to seek care in facilities. In large part, institutions were unprepared to deal with the individuals who were suffering from heat exhaustion. If we can predict these events, we can prepare for needs and services.

Question: (Dr. Copeland) How do we define the standard of care, and is there a different standard of care for every neighborhood type or is there one single standard?

Answer: That is a great question, and one I'm looking to EnHIP to answer, and this is the type of question that the agency funds to discover the answer. The standard of care is obviously going to be reflected by an ideal, assuming that the facility you go to, the clinician you go to, the home

41

you live in have access to all the potential resources that the standard suggests. We know this is not going to be the case and that is because every community defines and creates its own healthcare delivery system based on what resources are available. How we define those standards and how we implement them will then answer the question you just asked.

Dr. Valdez invited EnHIP members to apply to AHRQ programs to learn more about addressing health disparities within communities of great burden and share thoughts on how to unravel a system of care that continues to produce inequities and structural racism.

XII. Recognition Ceremony

Recipient: Paul Tchounwou, PhD, Dean Morgan State University (MSU) School of Computer, Mathematical, and Natural Sciences (SCMNS) Recognition Award Presenter: Milton Morris, PhD, Benedict College

Dr. Paul Tchounwou was recognized for his years of service as a member of EnHIP. Dr. Tchounwou joined virtually.

Dr. Milton Morris, in his introduction of Dr. Paul Tchounwou, described Dr. Tchounwou's current primary responsibilities as overseeing the academic enterprise and guiding the continued advancement of SCMNS's research, education, and training programs. Dr. Morris also noted that, prior to joining MSU, Dr. Tchounwou served as presidential distinguished professor; associate dean for Research, Graduate Studies, and International Programs in the College of Science, Engineering and Technology, and executive director of the Research Centers in Minority Institution's (RCMI's) Center for Health Disparities Research at Jackson State University (JSU).

Dr. Tchounwou's accomplishments include his tenure as the director of the JSU Doctoral Program in Environmental Science Doctoral Program in Environmental Science. His dedication to this program led to the production of over a hundred PhD scholars who have gone on to obtain rewarding jobs in academia, government and state agencies, and the booming environmental industry. Because of this transformative impact and contribution toward the production of African American doctorates in science, technology, engineering, and mathematics (STEM), Dr. Tchounwou received the 2013 AAAS Mentor Award bestowed by the American Association for the Advancement of Science, and the 2018 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM) bestowed by the White House.

Dr. Tchounwou served as principal investigator and executive director of NIH-RCMI Center for Environmental Health; NIH-RCMI Translational Research Network Data Technology Coordinating Center; U.S. Department of Defense (DoD) Center of Excellence in STEM Education; and Do-Ed-First in the World Program in STEM. He was also a co-principal investigator (PI) of the National Science Foundation's (NSF's) Centers of Research Excellence in Science and Technology (CREST) for nanotoxicity studies. He is an internationally known biomedical scientist whose research focuses on the elucidation of cellular and molecular mechanisms of action of therapeutic drugs and xenobiotic compounds. During his tenure at JSU, he obtained over 120 million dollars in grantsmanship to support academic and research excellence. He is the author of 305 refereed publications and over 638 scientific presentations. He is the editor in chief of the International Journal of Environmental Research and Public Health (IF-4.61), and Environmental Toxicology (IF-4.12). He serves as associate editor of Frontiers in Oncology (IF-6.24).

In addition to the AAAS and PAESMEM awards, Dr. Tchounwou received other awards for excellence in the profession including the 2003 Millennium Award for Excellence in Research conferred by the White House (Washington, DC); the 2001 National Role Model Award for Exemplary Achievements in Mentoring, Counseling, and Guiding Others; the AACR Faculty Scholar Award for Cancer Research; the International Order of Merit for Superb Contributions to Biomedical Sciences; and the Decree of Merit for Outstanding Contributions to Toxicology and Public Health.

Dr. Tchounwou is a selected member of Delta Omega Honorary Public Health Society, a fellow of the American Biographical Institute, a fellow of the African Scientific Institute, and a distinguished fellow of the International Engineering and Technology Institute. He is highlighted in many biographical references including the American Registry of Outstanding Professionals; Marquis Who's Who in American Education; Marquis Who's Who in Medicine and Healthcare; Marquis Who's Who in South and Southwest; Marquis Who's Who in America; Marquis Who's Who in the World; and International Who's Who of Professionals.

43

Dr. Tchounwou received his B.S. in Biology and M.S. in Biochemistry from the University of Yaoundé, Cameroon. He earned his M.S.P.H. in Environmental Health and Sc.D. in Environmental Toxicology from Tulane University School of Public Health and Tropical Medicine in New Orleans, Louisiana. He also did post-doctoral research in molecular toxicology and carcinogenesis at Tulane University Medical Center.

Dr. Tchounwou's acceptance included words of thanks to Dr. Morris for his introduction, to Dr. Matthews-Juarez for nominating him for the recognition award, and to Dr. Brennan for her leadership at NLM and the long-standing support of the EnHIP Partnership. Dr. Tchounwou acknowledged the NLM as a catalyst for research and scientific discovery. The support provided by NLM through the years enhanced the capacity of institutions to educate and train professionals to conduct research in biomedicine, healthcare, health services, and health disparities, and to engage in community outreach and services.

He expressed his gratitude for being able to receive past support from NLM to host the International Symposium on Recent Advances in Environmental Health Research presymposium training workshop. This opportunity addressed the needs of researchers, scientists, and policymakers, and led to advances in environmental and biomedical research through participants' training on NLM online resources and databases. The workshop provided participants with access, awareness, and avenues for exploring valuable environmental health NLM resources.

His closing remarks included thanking ORAU for helping to implement the customized workshops and EnHIP colleagues for supporting his work over the years.

Recipient: Carmen Vélez Vega, PhD, MSW Professor Doctoral Program in Social Determinants of Health, Social Sciences Department School of Public Health San Juan, Puerto Rico Presenter: Diógenes Herreño-Sáenz, PhD

Dr. Herreño-Sáenz introduced Dr. Vélez Vega as a social worker that has devoted over 30 years to improving the health and well-being of socially excluded groups. Her work in community engagement includes community participatory research, environmental justice, LGBT health, and post-disaster recovery and resiliency. She has mentored many students now working in key

public health areas. She also finds time to serve as volunteer for several human rights issues involving LGBT health, environmental justice, and women's health.

Dr. Vélez Vega is on-site principal investigator for the Puerto Rico Testsite for Exploring Contamination Threats (PROTECT), the Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE), the Puerto Rico Environmental Child Health Exposure Study (ECHO), and the Zika in Pregnancy International Study in the Puerto Rico Northern area. She is also the director of the Community Engagement Core for the University of Puerto Rico's (UPR's) Center for Collaborative Research in Health Disparities, Research Centers for Minority Institutions (RCMI), funded by the National Institute on Minority Health and Health Disparities (NIHMD). She has made many contributions through these research projects, and particularly during the emergence of Zika in Puerto Rico when she developed an outreach program and support for pregnant women to avoid exposure to this serious prenatal infection.

The PROTECT program is an extensive and rigorous cohort study of pregnancy exposures to environmental contaminants. The program has made many research contributions and has demonstrated that phthalates and other household chemicals are an important contributor to preterm births in Puerto Rico. Her contribution included reporting back to participants the results of the testing conducted under this research program. Informing how exposures can be avoided has set a new standard for studies and has been embraced by new projects, such as ECHO. Dr. Vélez Vega has also been a collaborator of March of Dimes in Puerto Rico that has led to increased awareness of strategies to reduce preterm births and resulted in a major reduction in the preterm birth rate in Puerto Rico.

Dr. Vélez Vega has been a champion for LGBT health and served on the board of directors of the first federally qualified health center in Puerto Rico serving the LGBT community. She has been a member of the Children's Environmental Health Advisory Committee (CHPAC) to the EPA administrator since 2020. In 2019, she received the Helen Rodriguez-Trias Social Justice Award from the American Public Health Association (APHA). She has been recognized as a human rights activist for her struggle for equality. Since Hurricane María and COVID-19, she has contributed to recovery efforts and currently leads a project to support community health workers in emergency preparedness for medically vulnerable individuals in Puerto Rico.

Dr. Herreño-Sáenz closed his introduction with thanks to Dr. Vélez Vega for her contribution to the people of Puerto Rico and for all her research that is deserving of this recognition.

Dr. Vélez Vega said that she is honored to be considered for recognition by EnHIP, as she has come to learn about the work of this incredible movement. She has been impressed by the work and commitment EnHIP has towards environmental health, social justice, and health equity. She said during the EnHIP Annual Meeting she had felt energy, enthusiasm, and great admiration for the work of the EnHIP members and hopes to collaborate with members in the future. She added that meeting presentations stimulating dialogue are so important to the work EnHIP does as we need to know our kindred spirits. She thanked the EnHIP for the gift of truth about the USPHS on Black Men and Syphilis in Tuskegee that she will never forget and will repeat to her students and colleagues wherever she goes.

She closed by thanking EnHIP for bestowing the honor of recognition, Emma Fernandez-Repollet for being kind enough to nominate her, and the research team with whom she works. She shares the honor with all those that have worked with her to fight social injustice and health disparities and change the determinants of health to make this a more just society. She finished by thanking her wife and child for giving her a supportive home and courage to continue every day.

XIII. Closing Remarks

Dr. Matthews-Juarez thanked the members, speakers, and guests for attending. She noted that EnHIP was duty-bound to participate in and carry out the expectations of the goals and objectives of the EnHIP mission, and that they have succeeded in that very well during the meeting. She also recognized the planning work that went into the meeting by the OET and ORAU staff. She thanked the facilitators for their help in guiding the conversations and the Howard Library staff for supporting and hosting the meeting. Special thanks were given to Dr. Warren for his continued support of her chair, the partnership as a whole, and for going above and beyond in his commitment to the work EnHIP does.

Dr. Matthews-Juarez quoted NLM staff member and meeting guest, Mr. David Nash: "science is an expression in a reflection that we see naturally as a phenomenon in our daily lives." She said we see this daily in our society and it is the foundation and mental principle that we see expressed in our interactions with others, from structural racism to transformation of equality and advancing health equity. She ended by saying it was a privilege to be a part of EnHIP, and she continues to leave the meetings feeling inspired and hopes the members feel that inspiration as well. She asked the members to collaborate and then come back together to evaluate the effectiveness of it.

Dr. Warren stressed the importance of the members attending the meeting and being together. COVID-19 had given an example of the pain and strain that occurs when we are not together, and while some were talking about post-COVID-19, he reminded the members that COVID-19 was still very much present. Most of what we hear about COVID-19 is not about the virus, but rather the behaviors of people affected.

He closed by saying there was something about the term "leader" that he tended to resist due to the lack of what truly identifies a leader: a commitment to ethics. He said unless we talk about ethical leadership, we are talking about more trauma to the people the EnHIP serves. Dr. Warren applauded the ethical leadership that was at the meeting. He thanked the EnHIP members for all that they do and Howard University for hosting them at the library.

Dr. Keselman added her words of gratitude by thanking the members and speakers for coming to the EnHIP meeting and to Howard University, and to Dr. Fatima Mncube-Barnes for organizing and hosting the partnership. She thanked Dr. Matthews-Juarez and Dr. Warren for supporting the dynamic and inspirational meeting and putting a tremendous amount of work into making it successful. She was honored to be able to meet the members in person and hopes that the new representatives feel like they are not only names on a listserv and that all feel comfortable reaching out to other members.

Dr. Keselman noted to the members that the input from the succession planning meeting would be reviewed by the executive committee and shared with members when an action plan was finalized. She closed by saying she is looking forward to the next meeting, staying connected, and continuing to support the wonderful work that EnHIP does.

47

XIV.Pictorial Highlights



XV. Directory of Guest Speakers

ENVIRONMENTAL HEALTH INFORMATION PARTNERSHIPS DIRECTORY OF GUEST SPEAKERS

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John W. Gilford, PhD

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Roshunda Ivory, DrPH, CHES

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Robert Otto Valdez, PhD, MHSA

Director of the Agency for Healthcare Research and Quality (AHRQ) U.S. Department for Health and Human Services 5600 Fishers Lane Rockville MD 20852 E-mail: <u>director@ahrq.hhs.gov</u>

XVI. Speaker Biographies

ENVIRONMENTAL HEALTH INFORMATION PARTNERSHIPS SPEAKERS BIOGRAPHIES

Patricia Flatley Brennan, RN, PhD, is the director of the National Library of Medicine (NLM) at the National Institutes of Health. NLM is a leader in biomedical informatics and computational health data science research and the world's largest biomedical library. Dr. Brennan holds a Master of Science in Nursing and a PhD in industrial engineering. Brennan is an elected member of the National Academy of Medicine, and she is a fellow of the American Institute for Medical and Biological Engineering, the American Academy of Nursing, the American College of Medical Informatics, and the New York Academy of Medicine.

John W. Gilford, PhD, is the regional health administrator for the U.S. Department of Health and Human Services (HHS), Office of the Assistant Secretary for Health (OASH), Region 4. As the senior federal public health official for HHS's largest geographic region, he performs essential functions for the Department in the areas of prevention, preparedness, and agency-wide coordination. Before joining OASH, Dr. Gilford was employed at the Centers for Disease Control and Prevention (CDC) for 10 years as a lead behavioral scientist. While at CDC, he served as the senior scientist for the Prevention Practice and Translation Branch (PPTB) in the Division of Violence Prevention. He completed his undergraduate studies at the University of Cincinnati (BA Psychology) and graduate work at the University of Georgia (MSW and PhD), where he has taught research methods and program evaluation as an adjunct professor since 2003.

Lillie Tyson Head is the president of the Voices For Our Fathers Legacy Foundation, which was organized in 2014 by descendants of the 623 men unethically and immorally treated in the U.S. Public Health Service's "Tuskegee Study of Untreated Syphilis in the Negro Male" in Macon County, Alabama from 1932 to 1972. Ms. Head's father, Freddie Lee Tyson, was unknowingly recruited into the study. As president of Voices For Our Fathers Legacy Foundation, Ms. Head is committed to transforming people's understanding of the U.S. Public Health Service's Study of Untreated Syphilis, keeping alive the men's legacies, and fostering education, medical research, and social justice.

Darryl B. Hood, PhD, is a professor, dean's fellow, and environmental public health neurotoxicologist in the Division of Environmental Health Sciences in the College of Public Health at The Ohio State University (OSU). Prior to joining OSU, he served on the faculty at Meharry Medical College for 20 years and led what has come to be known as the most successful minority grant initiative (S11) sponsored by the National Institute of Environmental Health Sciences (NIEHS). This initiative was known as the "Advanced Research Cooperation in Environmental Health" (ARCH) Program. The research contributed to the scientific database that the U.S. Environmental Protection Agency (EPA) used to reassess the levels of polycyclic aromatic hydrocarbon emissions from smokestacks resulting in public policy changes that will serve to decrease the adverse health effects associated with environmental exposures. Dr. Hood recently received an EPA STAR Award to continue his work as the co-architect of the novel Public Health Exposome framework and analytics with an environmental justice lens. His work is focused on the high-risk and vulnerable underrepresented minority census tracts of Columbus, OH. He serves on the NIEHS National Advisory Environmental Health Sciences Council and the Children's Environmental Health Committee as well as the Standing Committee on Emerging Science for Environmental Health Decisions at the National Academies of Sciences, Engineering, and Medicine.

Roshunda Ivory, DrPH, CHES, is the Region 4 minority health analyst for the U.S. Department of Health and Human Services, Office for the Assistant Secretary for Health (HHS-OASH). In this capacity, she works with state, tribal, local, and community stakeholders to improve health, eliminate health disparities, and advance health equity in minority, underserved, and vulnerable populations in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. Prior to her time at HHS-OASH, Dr. Ivory worked for the Fulton County Board of Health (FCBOH) as an environmental health specialist/healthy homes specialist. In this role, she worked to monitor, investigate, and implement standard operating procedures for FCBOH programs. She also served as the program consultant for the board's Healthy Homes project, which included designing interventions and developing recommendations to reduce and/or eliminate health hazards in pediatric cases in Fulton County. Dr. Ivory holds a Doctor of Public Health from Jackson State University, a Master of Science from Mississippi Valley State University, and a Bachelor of Science from Mississippi State University. Additionally, she is a Certified Health Education Specialist (CHES).

49

Robert Otto Valdez, PhD, MHSA, was appointed director of the Agency for Healthcare Research and Quality (AHRQ) in February 2022. He was previously the Robert Wood Johnson Foundation (RWJF) Professor Emeritus of Family & Community Medicine and Economics at the University of New Mexico (UNM). From 1993 through 1997, Dr. Valdez served at the U.S. Department of Health and Human Services (HHS) as Deputy Assistant Secretary for Health (within the Public Health Service) and simultaneously as Director of Interagency Health Policy (at the Centers for Medicare and Medicaid Services). Before joining HHS in 1993, he served as a Special Senior Advisor to the Clinton White House on healthcare reform. He chaired the Healthcare Reform Benefits Workgroup and was a member of the Analytic Modeling Workgroup. He previously served in the Office of Child Health for the Health Care Financing Administration during the Carter Administration.

XVII. EnHIP Member Institutions

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