

Environmental Health Disparities and Environmental Justice Meeting

July 29-31, 2013 | NIEHS, Bldg. 101, Rodbell Auditorium | Research Triangle Park, NC

The **Environmental Health Disparities and Environmental Justice Meeting** brought together over 200 researchers, community residents, health care professionals, and funders to consider ways to address environmental health disparities (EHD) and environmental justice (EJ) issues and to identify actionable recommendations. During the three-day event, participants shared their own experiences and knowledge, showcased benefits of community-university partnerships, highlighted innovative research tools, emphasized the importance of dialogue, and identified collaborators with new skills for addressing EHD.



During her opening remarks, Linda Birnbaum, Ph.D., director of the NIEHS, said that the commitment to community engagement, dialogue, and capacity building of all partners can bring lasting impacts and improved public health.

(Photo courtesy of Steve McCaw)

The meeting's overall success is highlighted by the demonstrated commitment of:

- **community groups and residents** to research partnerships that examine and inform solutions to their environmental health concerns;
- **researchers** to equitable community engagement in the research process and recognition of communities' local knowledge;
- **health care professionals** to improving communication with patients about environmental health issues; and
- **funders** to support projects that address both historical and emerging EHD and EJ issues.

The meeting was focused on four key themes, described below, and led to a number of key recommendations.

Setting the Context

Linda Birnbaum, Ph.D., director of the NIEHS and the National Toxicology Program (NTP), opened the meeting by highlighting its historical context and how it built upon a series of events focused on EHD and EJ.

She emphasized the NIEHS’s ongoing commitment to addressing environmental health inequities and acknowledged the public health impacts resulting from grantees’ community-engaged research.

John Ruffin, Ph.D., director of NIMHD, and James H. Johnson, Jr., Ph.D., director of the EPA National Center for Environmental Research, presented on EHD and EJ work funded by their respective institutions. Ruffin emphasized the complexity of environmental health disparities, noting the need for multiple disciplines and partnerships to address these complex issues. Johnson pointed to the need for scientific research to support the important and wide-ranging policy and regulatory decisions to address EJ and EHD needs. He underlined the value of strategic partnerships among university, health care, and community partners.

Sharunda Buchanan, Ph.D., director of the CDC’s National Center for Environmental Health (NCEH) Division of Emergency and Environmental Health Services, as well as the environmental justice liaison for NCEH/Agency for Toxic Substances and Disease Registry, continued the theme of partnerships, remarking that it takes a team/village to address EHD. She encouraged participants to focus on “health equity” and consider sustainable ways to improve the health status of communities.

The keynote speaker, the University of Michigan’s Marie Lynn Miranda, Ph.D., made a compelling case for multiple disciplines and research approaches, especially community engagement, to fully understand the many stressors involved in EHD. She said that disparity is not just about income and equality but includes disparities in health outcomes, in environmental exposures, and in the social fabric of communities that is determined by environmental stressors. She presented integrated research projects underway at the [Southern Center on Environmentally-Driven Disparities in Birth Outcomes](#) that are aimed at untangling causes of health disparities tied to air pollution in North Carolina. Miranda emphasized the importance of connecting research programs to clinical, public health, or policy interventions for the highest potential impact.

Marie Lynn Miranda, Ph.D., from the University of Michigan gave the keynote address, “It Takes a Village: Integrated Methods for Addressing Environmental Health Disparities.” (Photo courtesy of Steve McCaw)



General Sessions

The **Community institutional review board (IRB) session** focused on ethical issues specific to community-engaged research. Panelists noted how community IRBs can empower community organizations and members to be equal research partners, address possible risks to the individual and community as a whole, and deal with complex issues, such as data ownership and data sharing with study participants. Panelists shared examples of successful integration of community-based organizations into the human ethics review



process, as well as resources for training, such as CIRTification, from the University of Illinois at Chicago (<http://go.uic.edu/CIRTification>).

The **funding community-based research** session touched upon several critical themes. Panelists underscored the value of multi-year funding to allow for time to build collaborations. They pointed out that organizational infrastructure, which is vital to applying for and managing federal grants, may present a barrier for some community-based organizations; therefore, funding opportunities that build the essential institutional capacity are needed. Presenters also reminded future applicants that they should make sure their proposed project goals align with funders' missions, suggested that organizations can benefit from using a patchwork approach to funding projects, and described sources of technical assistance.

In an update on recent **changes to lobbying restrictions**, Gwen Collman, Ph.D., director of the NIEHS Division of Extramural Research & Training (DERT) encouraged participants to review new information on the following Web pages:

- Extramural Nexus blog post <http://nexus.od.nih.gov/all/2013/05/24/nih-funds-and-lobbying-activities/>
- Grants policy statement http://grants.nih.gov/grants/policy/nihgps_2012/nihgps_ch4.htm#lobby_prohibition

Concurrent Sessions and Recommendations

Concurrent, interactive sessions comprised a major portion of the meeting and covered myriad topics. The goal of these dynamic sessions was to stimulate discussion among participants and identify action items to advance. All groups contributed to a report-back



Concurrent Sessions focused on topics such as:

- translating research,
- innovative tools and technologies,
- research disparities,
- engaging communities using GIS,
- Native American perspectives of EJ,
- contributions from social sciences and epidemiology,
- conducting health impact assessments, and
- managing conflicts about research.

(Photo courtesy of Steve McCaw)



Beverley-Xaviera Watkins, Ph.D., of Weil Cornell Medical College (right) was a panelist for the concurrent session on geographic and spatial analysis. She is part of a community-academic research partnership that uses GIS mapping to strengthen community capacity to address EHD through research, community organizing, campaign building, and policy change in New York's Lower East Side. (Photo courtesy of Steve McCaw)



session on the second day. Following are a few crosscutting issues, next steps, and recommendations.

Capacity building in community-engaged research for researchers, community partners, and funders.

Participants emphasized the importance of training for all research partners. In particular, they noted:

Cultural competency training for funders and researchers may ensure research approaches better address cultural differences in the communities they serve.

Training that enables researchers to provide technical support to community partners and to manage expectations of what the project will provide to the community will contribute to a stronger, trusting relationship.

Capacity building projects focused on helping community-based organizations build infrastructure and increase their understanding of the scientific process strengthens the group's ability to apply for future funding support. The sustainability of a project often hinges on the community and a strong community organization, which can serve as an intermediary between academics and their community partners.

Communication and returning research results. Attendees acknowledged the challenges of, and the need for, communication among research partners. They emphasized:

The importance of utilizing community assets, especially community advisors possessing local knowledge, to provide input on the most appropriate forms of communications. This would include guidance to investigators on culturally preferred information sources, formats, graphics, and other audiovisual tools to help make outreach and education materials effective. Of equal importance in building partnerships is understanding, honoring, and respecting differences in tribal communities to ensure that recommendations do not disrupt traditional practices and are more likely to be embraced.

Research results, whether positive or negative, need to be communicated back to the community. This commitment builds trust and often raises environmental health literacy.

Creative thinking and novel dissemination approaches of environmental public health messages are vital. Participants suggested using venues with "captive audiences," such as buses or Laundromats, which present excellent communication opportunities.

Funding opportunities to advance community engagement. Programs that build infrastructure and promote communication among academic, community,



David Shuffler from Youth Ministries for Peace and Justice and Damaris Reyes from Good Old Lower East Side (GOLES) talk during one of the breaks. (Photo courtesy of Steve McCaw)





Wilma Subra is part of the Louisiana Environmental Action Network (LEAN), which fosters cooperation and communication among citizens and corporate and government organizations to assess and mend environmental problems in Louisiana. (Photo courtesy of Steve McCaw)

and health care partners depend on consistent funding. Participants highlighted ways to foster and advance community-engaged research to address EHD, such as:

Training programs, young scholar support, and externships to build collaborations among academics, community partners, and health care providers by plugging early-career academics into community knowledge systems.

Conference grants to facilitate the involvement of new disciplines, such as the

social sciences, to address emerging issues.

Targeted funding opportunities with well-focused requirements, such as dedicated research centers and interdisciplinary grants programs, to encourage multi-disciplinary approaches to EHD. Participants specifically encouraged bringing back the Partnerships for Communication grant program because it was successful in helping build capacity for community-based organizations and transitioning them into research.

Multi-year funding for community-engaged research projects to build collaborations and to reach the intervention/communication stage of the project. Community organizations expressed a need for funding that allows them to conduct outreach and education, as well as research.

User-friendly grant process for community organizations and other new applicants to enable successful grant submission. Participants recommended establishing a community presence in review, shortening the review time, and using more consistent grant application forms across agencies.

New tools and standards for understanding and addressing EJ and EHD issues. With the rise in Citizen Science, giving community partners cost-effective and sustainable tools, as well as training to use such tools, can help broaden the impact of research. Participants highlighted:

Civic techno-science as a nimble approach that complements traditional research and allows rapid response to emerging issues.

Online repositories of tools and technologies, such as public participatory GIS, enable communities to participate more fully in data collection.

A GIS database with uniform metrics and standards is imperative to the success of mapping tools as lower-cost data at the county, sub-county, and zip code level and temporal data become accessible to advance this



work. Uniform standards will be essential as new tools come on line that are able to measure cumulative exposure to multiple stressors, incorporate epigenetics, and integrate data from different disciplines.

Participants emphasized the need to measure factors that are protective and support resiliency and for additional research, such as epigenetics investigations, that would help reveal why people experiencing the same exposures show differences in health outcomes.

Posters and workshops

The meeting culminated with posters and a day of interactive workshops. Through their interactions with the poster presenters, participants learned more about the many projects that are addressing environmental health disparities. The poster session included 35 posters that presented community-based research projects, practical approaches for collaboration, how EHD is experienced locally, and what communities are doing to address EHD and EJ issues [[Poster Abstracts.pdf](#) (698KB)].

The 13 hands-on workshops covered practical topics, such as best practices for community-engaged research, communication approaches that build trust, community training to inform policy makers, tools and methods for enhancing community and multi-stakeholder engagement, and how to conduct evaluations using the PEPH Evaluation Metrics Manual [[Workshop Abstracts.pdf](#) (725KB)].

Attendees enjoyed participating in the workshops, commenting that they were going home with specific ideas to apply to their work and a greater understanding of the tools and approaches used in EHD and EJ research.

Johnnye Lewis, Ph.D., from the University of New Mexico College of Pharmacy speaks to George Thurston, Sc.D., from the New York University School of Medicine. During the poster session, she presented research that points to zinc as a possible community intervention to block uranium toxicity. (Photo courtesy of Steve McCaw)

