

Environmental Health Disparities & Environmental Justice Meeting Draft Session Abstracts

July 29-31, 2013 | NIEHS Rall Building | Research Triangle Park, NC

Concurrent Sessions #1

Research to Action: Translational Research to Address Health Disparities and Environmental Inequities

Moderator: Caroline Dilworth, NIEHS

Presenters: Laurel Schaider, Harvard School of Public Health; Rebecca Jim, L.E.A.D. Agency; Linda McCauley, Emory University; Patrick Ryan, Cincinnati Children's Hospital Medical Center

Session Description:

Studies funded through the Research to Action program have focused on health disparities from environmental and occupational exposures that community members identified as a local concern. This session highlights 3 Research to Action projects and the close collaborations formed with community partners from health disparate communities who, together with their academic partners, sought to address environmental inequities and health disparities at the local level. These academic-community partnerships led to the development of education, prevention, and intervention programs and to the translation and dissemination of the research findings in culturally appropriate language and formats. The presenters will discuss their interactions with community partners in research, and how these active partnerships have been able to implement public health initiatives and policy changes that are leading to the prevention or reduction of harmful environmental and occupational exposures as well as to improvements in human health. This includes research conducted with Latino farmworkers in Florida exposed to high doses of pesticides, with parents and teachers in Ohio to address a high prevalence of asthma among schoolchildren, and with community members and organizations in Montana to address the long term outcomes of exposure to asbestos.

Innovative Tools and Technologies for Environmental Public Health Research

Moderator: Symma Finn, NIEHS

Presenters: Sharon Croisant, University of Texas Medical Branch (UTMB); Chris McCarty, University of Florida; Sara Wylie, Northeastern University

Session Description:

Researchers in environmental public health and related fields have been developing new modalities for measuring and assessing environmental risks as well as adapting existing tools specifically for use in environmental health research. These methods, approaches, and tools are often developed to allow the fuller engagement of community partners in the research process and have the potential to be used by community organizations to sustain environmental assessment activities beyond the period of funding. This session will highlight the work of three researchers who have leveraged existing tools, such as GIS mapping, for community-based research, and developed new approaches that are being applied in environmental public health research. This includes the use of Social Network Analysis to track family and community connections in a study of resilience post-disaster, and the development of cost effective, open source, Do-It-Yourself tools to stimulate community based involvement in research and to promote increased environmental health literacy in health disparate communities.

Effectively Reaching Underserved Populations: Lessons Learned on Culturally Appropriate Communication Strategies and Tools

Moderator: Marti Lindsey, University of Arizona

Presenters: Neasha Graves, University of North Carolina at Chapel Hill (UNC-CH); Sara Quandt, Wake Forest School of Medicine; Monica Ramirez-Andreotta, Northeastern University

Session Description:

The purpose of this session is to examine the ways in which projects are communicating environmental health disparities research findings in culturally appropriate ways. Communication and dialogue among all research partners is central to effective community-engaged research. Such communication requires that community residents, healthcare professionals, and decision-makers understand the connection between environmental factors and health and have the ability and capacity to act on this knowledge to prevent, mitigate or regulate exposures. In this session, panelists will begin the conversation by sharing how they investigated the educational needs of young African American women and Latino farmworker families to understand environmental health science on breast cancer risk and pesticide exposure. They will highlight the culturally appropriate materials and tools developed in response to those needs. They will describe how they are translating their findings about the systemic issues affecting black women's breast health and farmworkers' pesticide exposure to information that can be used by policy makers and health care professionals in addressing environmental health disparities with these populations. Meeting participants will then discuss other approaches and identify priority actions to further advance translational work.

Addressing 'Research Deserts': Building Connections to Build Capacity

Moderator: Liam O'Fallon, NIEHS

Presenters: Senaida Fernandez, University of California; Sacoby Wilson, University of Maryland; Doug Stevens, Salish Kootenai College; Alice Park, Community-Campus Partnerships for Health

Session Description:

Through a variety of federal, state, and foundation-supported programs, many community-engaged (community-university) projects have been supported, developed, and implemented to address environmental health concerns of community residents. However, as noted in several recent reports, there are communities that are not able to tap into and benefit from federal and foundation support. These 'research deserts' present a challenge and an opportunity. In this session, panelists will describe training programs they have developed or benefited from, reflect on the importance of filling the gaps of these research deserts, and consider ways in which existing models can be built upon. Panelists will discuss multiple excellent examples of training activities and curricula, all designed to build the capacity of community residents, health care professionals, and researchers to work collaboratively in the full research process. Special attention will be given to issues surrounding project sustainability and transitions from capacity to research to action. Participants will consider how various programs and partnerships (for example, Federal programs, State Programs, Foundation programs, and Public-private partnerships) can advance the training needs to address EHD and EJ.

At the end of the 90 minute session, the group will identify 2-3 priority actions that can be implemented by participants of all levels of involvement (community, researcher, and federal).

Concurrent Sessions #2

Examining environmental determinants of health and engaging communities around EPH issues using geographic and spatial analysis

Moderator: Ken Olden

Session Leads: Richard Callan, EPA; Nishadi Rajapakse, NIMHD

Panelists: Paul Juarez, University of Tennessee Health Science Center; Sandra Glover, University of South Carolina; Beverly-Xaviera Watkins, Weill Cornell Medical College

Session Description:

There is a substantial body of evidence linking social and physical environmental factors (i.e. increased exposures to toxins and pollution), and limited access to healthy foods and recreational activities, to adverse health outcomes. These include acute conditions such as respiratory illnesses (including asthma) to more chronic conditions such as cardiovascular disease, obesity, cancer and poor mental health. Efforts to both engage communities around environmental public health issues and examine environmental determinants of health disparities can be enhanced by the use of **geographic and spatial analysis information systems, GIS**. Community level mapping of data on

- *Socioeconomic and demographic indicators:* Income levels, housing, vital statistics, census and employment data
- *Natural and built environment characteristics:* Indoor and outdoor air quality, surface and ground water quality, food safety, contamination of soils, and placement of noxious land uses
- *Local environmental health risk factors:* Emissions from vehicles, waste removal and disposal, use of pesticides, local industry (i.e. dry cleaners, restaurants)
- *Health care services:* Outreach services, clinics, hospitals, and first responder organizations
- *Ecological data:* Land use changes including flooding risk related to climate change
- *Health data:* available from local, state and federal agencies

These provide a visual tool for identifying disease outcomes that may be environmentally linked and developing interventions to diminish physical hazards, increase positive attributes in the community and reduce vulnerability to environmental harms and negative health effects. In addition, these maps enable local community-based organizations to increase public awareness of environmental public health issues and advocate for policy change.

This panel will provide an overview of their research with community level mapping of GIS data.

Inequities Persist: Environmental Justice from a Native American Perspective

Moderator: Symma Finn, NIEHS

Presenters: Katsi Cook, Running Strong for American Indian Youth; Clarita Lefthand-Begay, University of Washington; Johnnye Lewis, University of New Mexico

Session Description:

Environmental justice (EJ) has emerged as an important component of environmental public health that moves beyond the identification of environmental health disparities to research and policy change that attempts to address ongoing grievances and injustices related to environmental exposures. Since the development and implementation of the first DHHS EJ strategy in 1995, progress has been made in identifying and addressing disproportionately high and adverse environmental exposures among low-income populations and Indian Tribes, but inequities persist.

These inequities disproportionately affect the 566 federally recognized Tribes and 5.2 million Native Americans and Alaskan Natives in the U.S. who experience high levels of environmental exposures, and the effects of multiple exposures, over the life course. This session will explore several ongoing environmental justice issues that these tribal groups have mobilized around for many years and highlight the ongoing health and environmental health disparities that disproportionately affect these groups. The case studies presented exemplify culturally sensitive approaches that have been successful to address EJ and that do not represent “forced acculturation” of investigator-driven, evidence-based interventions. The session will also touch upon issues that remain unresolved despite existing efforts to mitigate or prevent environmental exposures that are known to be harmful. This includes the harmful effects of mining on tribal lands, the contamination of traditional foods by persistent organic pollutants, and the disruption of Native Americans’ sustainable and reciprocal relation with the environment from policies, environmental threats, and global climate change.

Community Experience of Contaminated Communities: Contributions from the Social Sciences

Moderator: Beth Anderson, NIEHS

Presenters: Phil Brown, Northeastern University; Michael Edelstein, Ramapo College of New Jersey; Elizabeth Hoover, Brown University

Session Description:

Social scientists have been central to the understanding of the impacts of Superfund and other hazardous waste sites, chemical explosions, oil spills, and human-exacerbated natural disasters. This session focuses on ethnographic case studies that explored environmental inequities. Some of these are "stand-alone" studies by social scientists, and some of them are parts of interdisciplinary collaborations with environmental health scientists. In both cases, social science research offers much for environmental health science and to environmental policy. We will additionally address the past and potential future role of NIEHS in advancing such research. NIEHS has played an important role in supporting environmental justice and

community-based participatory research, which has contributed to the study of communities impacted by environmental hazards. Other community-level understanding of contaminated communities has benefited from community engagement cores in center grants – Superfund Research Program, Children’s Environmental Health Center, Environmental Health Core Centers, and Breast Cancer and the Environment Research Centers. A 2012 Superfund Research Program workshop at Brown University further contributed to this research area. This panel includes scholars from sociology, anthropology, and psychology, who will review the state of knowledge about community experience of contaminated communities.

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Concurrent Sessions #3

Cumulative Exposures: The role of Epidemiology in elucidating environmental contributions to health disparities

Moderator: Christine Ekenga, NIEHS

Presenters: Paul Juarez, University of Tennessee Health Science Center; Gary Miller, Emory University; Amy Schulz, University of Michigan

Session Description:

Epidemiology aims to evaluate the relative contributions of different types of exposures on health outcomes. It has long been recognized that the single-exposure approach to risk assessment does not capture the multifactorial nature of many chronic diseases. The concept of the exposome was developed to highlight the need for a more comprehensive approach to environmental risk assessment. The exposome is a measure of all exposures experienced by an individual, from conception throughout the lifespan. Components of the exposome include the internal biological environment, external environmental agents, and the social environment. The session will focus on 1) current approaches to evaluating these exposures and 2) how epidemiology can be used to identify sources of health disparities among communities.

Using Health Impact Assessments (HIAs) to address environmental health disparities and create equity in communities

Moderator: LaToria Whitehead, CDC

Presenters: Ogonnaya Dotson-Newman, WE ACT for Environmental Justice; Kenneth Smith, NACCHO; Alexandra Nolen, Center to Eliminate Health Disparities, University of Texas Medical Branch

Session Description:

The purpose of this session is to explore the use of health impact assessments (HIAs) in (or by) environmental justice communities to build capacity and improve environmental conditions potentially linked to disease outcomes or health disparities, as well as move toward a health-in-all-policies framework.

Objectives: Participants will understand the use of HIA to create equity in communities, as well as become familiar with actions taken that impact policy at the local level by environmental justice organizations.

Conflicts over research that identifies community impacts of environmental exposures

Session Leads: Steven Wing, University of North Carolina-Chapel Hill, and John Sullivan, University of Texas Medical Branch

Presenters: Wilma Subra, Subra Company; Gary Grant, Tillery, NC; David Lewis, Neural Dynamics Research Group, University of British Columbia; Sharon Croisant, University of Texas Medical Branch

Session Description:

When evidence of exposure or health impacts is released, EHD and EJ researchers sometimes experience negative responses from polluters or groups that represent them. Threats to the confidentiality of research participants, personal attacks, or challenges to funding agencies that provide research support, may occur. This session offers perspectives from research groups that have experienced such responses, describes the kinds of problems that can be expected, and will help to prepare others to best navigate conflicts that could occur because of their research.

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