



# Environmental Health Disparities and Environmental Justice Meeting

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

## Background Materials, Session Resources, and Recommendations

- Background Materials .....1**
  - EPA, HHS, and NIEHS EJ..... 1*
  - Capacity Building..... 1*
  - Community Engaged Research..... 2*
  - Environmental Health Disparities and Environmental Justice..... 4*
  - Theater of the Oppressed..... 6*
  - Native American Environmental Justice..... 8*
- Session Resources .....12**
  - Concurrent Sessions #1..... 12*
    - Research to Action: Translational Research to Address Health Disparities and Environmental Inequities ..... 12
    - Innovative Tools and Technologies for Environmental Public Health Research ..... 12
    - Effectively Reaching Underserved Populations: Lessons Learned on Culturally Appropriate Communication Strategies and Tools..... 13
    - Addressing ‘Research Disparities’: Building Connections to Build Capacity..... 13
  - Concurrent Sessions #2..... 13*
    - Examining Environmental Determinants of Health and Engaging Communities around EPH Issues Using Geographic and Spatial Analysis ..... 13
    - Inequities Persist: Environmental Justice from a Native American Perspective..... 14
    - Community Experience of Contaminated Communities: Contributions from the Social Sciences ..... 14
  - Day 1 General Session ..... 17*
    - Institutional Review Boards and Community Engaged Research: How Can Universities and Community Organizations Work Together to Strengthen the Ethics Review of Community Based Research? ..... 17
  - Concurrent Sessions #3..... 18*
    - Cumulative Exposures: The Role of Epidemiology in Elucidating Environmental Contributions to Health Disparities..... 18
    - Conflicts over Research that Identifies Community Impacts of Environmental Exposures ..... 18
- Recommendations from Previous Meetings.....21**

## Background Materials

### EPA, HHS, and NIEHS EJ

**EPA's Plan EJ 2014** (<http://www.epa.gov/environmentaljustice/plan-ej/>)

**Environmental Justice at HHS** (<http://www.hhs.gov/environmentaljustice/>) – This page includes the information about Environmental Justice at HHS including the 2012 HHS Environmental Justice Strategy and Implementation Plan as well as the 2012 and 2013 HHS Environmental Justice Progress Reports

#### **NIEHS Strategic Plan Theme 4: Health Disparities and Global Environmental Health**

(<http://www.niehs.nih.gov/about/strategicplan/#a224829>) – This page contains links to the NIEHS Strategic Plan including Theme 4 of the plan – Health Disparities and Global Environmental Health

#### **HHS Health Disparities**

([http://www.hhs.gov/ocr/civilrights/resources/specialtopics/health\\_disparities/index.html](http://www.hhs.gov/ocr/civilrights/resources/specialtopics/health_disparities/index.html)) – This is the HHS Health Disparities Webpage. It includes information on Nondiscriminatory Quality Healthcare Services and Enforcement Success Stories.

### Capacity Building

#### **Power, Privilege and Participation: Meeting the challenge of equal research alliances**

Article on the importance of community-university partnerships and how to make the partnerships work. Written by WEACTION. (Urban Habitat)

Access on the EPA Web

([http://www.epa.gov/air/ej/conference2007/Swati\\_Prakash\\_Power\\_Privilege\\_Participation.pdf](http://www.epa.gov/air/ej/conference2007/Swati_Prakash_Power_Privilege_Participation.pdf)).



## Community Engaged Research

### Measuring the success of community science: The northern California household exposure study

Brown P, Brody JG, Morello-Frosch R, Tovar J, Zota AR, Rudel RA  
Environ Health Perspect. 2012 Mar;120(3):326-31 (Full text available-  
<http://ehp03.niehs.nih.gov/article/info:doi/10.1289/ehp.1103734>)

#### Abstract:

*Background:* Environmental health research involving community participation has increased substantially since the National Institute of Environmental Health Sciences (NIEHS) environmental justice (EJ) and community-based participatory research (CBPR) partnerships began in the mid 1990s. The goals of these partnerships are to inform and empower better decisions about exposures, foster trust, and generate scientific knowledge to reduce environmental health disparities in low-income, minority communities. Peer-reviewed publication and clinical health outcomes alone are inadequate criteria to judge the success of projects in meeting these goals; therefore, new strategies for evaluating success are needed.

*Objectives:* We reviewed the methods used to evaluate our project, “Linking Breast Cancer Advocacy and Environmental Justice” in order to help identify successful CBPR methods and assist other teams in documenting effectiveness. Although our project precedes development of the NIEHS Evaluation Metrics Manual, it illustrates the record keeping and self-reflection anticipated in NIEHS’ Partnerships for Environmental Public Health.

*Discussion:* Evaluation strategies should assess how CBPR partnerships meet the goals of all partners. Our partnership, which included two strong community-based organizations (CBOs), produced a team that helped all partners gain organizational capacity. Environmental sampling in homes and reporting the results of that effort had community education and constituency-building benefits. Scientific results contributed to a court decision requiring cumulative impact assessment for an oil refinery, and to new chemicals policies for consumer products. All partners leveraged additional funding to extend their work.

*Conclusions:* An appropriate evaluation strategy can demonstrate how CBPR projects can advance science, support community empowerment, increase environmental health literacy, and generate individual and policy action to protect health.

### Institutional review board challenges related to community-based participatory research on human exposure to environmental toxins: A case study

Brown P, Morello-Frosch R, Brody JG, Altman RG, Rudel RA, Senier L, Pérez C, Simpson R.  
Environ Health 2010 Jul 16;9:39 (Full text available-  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2914003/?tool=pubmed>)

#### Abstract:

*Background:* We report on the challenges of obtaining Institutional Review Board (IRB) coverage for a community-based participatory research (CBPR) environmental justice project, which involved



reporting biomonitoring and household exposure results to participants, and included lay participation in research.

*Methods:* We draw on our experiences guiding a multi-partner CBPR project through university and state Institutional Review Board reviews, and other CBPR colleagues' written accounts and conference presentations and discussions. We also interviewed academics involved in CBPR to learn of their challenges with Institutional Review Boards.

*Results:* We found that Institutional Review Boards are generally unfamiliar with CBPR, reluctant to oversee community partners, and resistant to ongoing researcher-participant interaction. Institutional Review Boards sometimes unintentionally violate the very principles of beneficence and justice which they are supposed to uphold. For example, some Institutional Review Boards refuse to allow report-back of individual data to participants, which contradicts the CBPR principles that guide a growing number of projects. This causes significant delays and may divert research and dissemination efforts. Our extensive education of our university Institutional Review Board convinced them to provide human subjects protection coverage for two community-based organizations in our partnership.

*Conclusions:* IRBs and funders should develop clear, routine review guidelines that respect the unique qualities of CBPR, while researchers and community partners can educate IRB staff and board members about the objectives, ethical frameworks, and research methods of CBPR. These strategies can better protect research participants from the harm of unnecessary delays and exclusion from the research process, while facilitating the ethical communication of study results to participants and communities.

### **Linking exposure assessment science with policy objectives for environmental justice and breast cancer advocacy: The northern California household exposure study**

Brody JG, Morello-Frosch R, Zota A, Brown P, Pérez C, Rudel RA

Am J Public Health 2009 Nov;99 Suppl 3:S600-9 (Full text available-

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2774181/>)

#### **Abstract:**

*Objectives:* We compared an urban fence-line community (neighboring an oil refinery) and a nonindustrial community in an exposure study focusing on pollutants of interest with respect to breast cancer and environmental justice.

*Methods:* We analyzed indoor and outdoor air from 40 homes in industrial Richmond, California, and 10 in rural Bolinas, California, for 153 compounds, including particulates and endocrine disruptors.

*Results:* Eighty compounds were detected outdoors in Richmond and 60 in Bolinas; Richmond concentrations were generally higher. Richmond's vanadium and nickel levels indicated effects of heavy oil combustion from oil refining and shipping; these levels were among the state's highest. In nearly half of Richmond homes, PM(2.5) exceeded California's annual ambient air quality standard. Paired outdoor-indoor measurements were significantly correlated for industry- and traffic-related PM(2.5), polycyclic aromatic hydrocarbons, elemental carbon, metals, and sulfates ( $r = 0.54-0.92$ ,  $P < .001$ ).



*Conclusions:* Indoor air quality is an important indicator of the cumulative impact of outdoor emissions in fence-line communities. Policies based on outdoor monitoring alone add to environmental injustice concerns in communities that host polluters. Community-based participatory exposure research can contribute to science and stimulate and inform action on the part of community residents and policymakers.

## Environmental Health Disparities and Environmental Justice

### The West End Revitalization Association's community-owned and -managed research model: Development, implementation, and action.

Heaney CD, Wilson SM, Wilson OR

Prog Community Health Partnersh. 2007 Winter; 1(4):339-49

[http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/progress\\_in\\_community\\_health\\_partnerships\\_research\\_education\\_and\\_action/v001/1.4heaney01.html](http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/progress_in_community_health_partnerships_research_education_and_action/v001/1.4heaney01.html)

#### **Abstract:**

*Background:* Principal investigators (PIs) of community-based projects are predominantly university faculty who partner with community-based organizations (CBOs) to find a place to conduct research in communities that will cooperate with their research objectives. University-managed research models (UMRMs) are not always beneficial for CBOs because the university usually manages the study, collects and owns the data, and leverages control at each stage of research, without priority to resolution of problems impacting the quality of life of participating communities.

*Objectives:* We present the principles of community-owned and -managed research (COMR), as a new community-driven research model developed by the West End Revitalization Association (WERA), a CBO in Mebane, North Carolina.

*Methods:* We describe WERA's development of COMR, compare the power hierarchies of COMR with traditional UMRMs, distinguish COMR partnerships from UMRM partnerships, discuss disbursement of funds, and control/ownership of data. As the PI of research activities, WERA drafted Memoranda of Agreement (MOAs) for all partners, including academic researchers, implemented quality assurance and control procedures, submitted community research protocols for institutional review, and retained data ownership for action, activism, and problem solving. COMR methods encouraged corrective action of environmental justice (EJ) problems in affected communities, including provision of public, regulated drinking water and sewer services.

*Conclusions:* COMR promotes CBOs with demonstrated organizational capacity to PI and project manager. The COMR model goes beyond UMRMs and CBPR because it emphasized the credibility and capacity of CBOs to develop, own, manage, foster, and sustain viable research agendas to address ongoing environmental hazards and related threats to health and quality of life.



### **Community-engaged environmental justice research at University of Massachusetts Lowell**

Siqueira CE

Am J Public Health 2009 Nov;99 Suppl 3:S485-7 (Full text available, requires membership-  
<http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2009.177360>)

### **The Vida Verde Women's Co-Op: Brazilian immigrants organizing to promote environmental and social justice.**

Gute DM, Siqueira E, Goldberg JS, Galvão H, Chianelli M, Pirie A

Am J Public Health 2009 Nov;99 Suppl 3:S495-8 (Full text available, requires membership-  
<http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2008.148528>)

#### **Abstract:**

We reviewed the key steps in the launch of the Vida Verde Women's Co-Op among Brazilian immigrant housecleaners in Somerville, MA. The co-op provides green housecleaning products, encourages healthy work practices, and promotes a sense of community among its members. We conducted in-depth interviews with 8 of the first co-op members, who reported a reduction in symptoms associated with the use of traditional cleaning agents and a new sense of mutual support. Critical to the co-op's success have been the supportive roles of its academic partners (Tufts University and the University of Massachusetts, Lowell), effective media outreach, and a focus on advancing social justice. Next steps include implementing a formal business plan and assessing the appropriateness of cooperatives in other industries.

### **Supplemental Issue dedicate to environmental Justice**

Issue S3 (November 2009) - American Journal of Public Health (Full text available, requires membership-  
<http://ajph.aphapublications.org/toc/ajph/99/S3>)

### **Partnerships for environmental and occupation justice: Contributions to research, capacity and public health.**

Baron S, Sinclair R, Payne-Sturges D, Phelps J, Zenick H, Collman GW, O'Fallon LR.

AM J Public Health 2009 Nov;99 Suppl 3:S517-25 (Full text available-  
<http://www.ncbi.nlm.nih.gov/pubmed/19890151>)



## Theater of the Oppressed

### The Forum Theatre of Augusto Boal: A Dramatic Model for Dialogue and Community-Based Environmental Science

Sullivan J, Lloyd RS

Local Environment 2006;11(6):627-46 (Full text available, requires membership-

<http://www.tandfonline.com/doi/abs/10.1080/13549830600853684?journalCode=cloe20#.UdxLmfnVDzh>)

#### Abstract

Community oriented environmental science combines the inclusive, action-oriented goals of environmental justice communities and the rationalist methodologies of science in an effort to balance urgent social and physical needs with research protocols, precise analysis and carefully measured conclusions. Community-based participatory research acknowledges that local expertise and networks, adverse social and economic consequences of environmental degradation and community beliefs and attitudes are vital factors that affect both overall community health and research outcomes. A unique CBPR approach to inclusive outreach and education is Community Environmental Forum Theatre (CEFT), developed through the National Institute of Environmental Health Sciences Center in Environmental Toxicology at the University of Texas Medical Branch/Galveston TX. CEFT integrates the dramaturgy of Augusto Boal's Theatre of the Oppressed and the democratizing dialogic process of Paulo Freire into the design and implementation of environmental health research, community health care and education. CEFT projects throughout the Texas petrochemical belt have used this form of interactive workshop and energized public performance to increase knowledge of toxicological concepts, develop risk awareness, extend and strengthen coalitions, create action agendas and promote community advocacy skills. Boal image-making techniques help to deconstruct concepts such as exposure pathways, dose response, differential susceptibilities, multiple stressors/cumulative risk and the healthy worker effect. Image-based ethnographies provide insight into risk perceptions, risk communication outcomes and overarching community dynamics impacting environmental justice. CEFT project efficacy is evaluated via a multi-frame process focused on goals specific to the roles of the scientific/environmental health outreach specialist, the community development artist/practitioner and the advocate for environmental health and justice issues

### Environmental Justice and Augusto Boal's Theatre of the Oppressed: A Unique Community Tool for Outreach, Communication, Education and Advocacy

Sullivan J, Parras J

Theory in Action 2008 Apr;1(2):20-39 (Full text available- <http://www.transformativestudies.org/wp-content/uploads/2008/07/environmental-justice-and-augusto-boal2.pdf>)

#### Abstract:

Our article, *Environmental Justice and Augusto Boal's Theatre of the Oppressed: a Unique Community Tool for Outreach, Communication, Education and Advocacy*, describes this transformative process, explores the theoretical and scientific influences behind the method and



unpacks the collaborative dynamic modulating the efforts of community activists, non-profit environmental professionals and academics to achieve and refine their working relationship. The text is accompanied by photos from actual sessions that illustrate how the methodology embodies concepts from environmental and social sciences to promote scientific literacy, and also uses short uncomplicated scenes to show how environmental injustices adversely affect both physical and mental health, and the larger economy of impacted communities. The fact that 85% of these towns and neighborhoods are communities of color underscores the fact that race and class are keys to the struggle for environmental justice. The Forum Theater methodology also provides a dialogic structure for deconstructing these deep-seated, bitterly divisive issues with sensitivity and respect.

### **Forum Theatre Skills & Concept Demonstration**

Video (on Center to Eliminate Health Disparities / UTMB website-  
<http://www.utmb.edu/CEHD/Programs/ForumTheater.asp>)

This video footage documents a Theatre of the Oppressed work session at the Environmental Protection Agency's Community Involvement Conference (CIC), Buffalo NY, July 2005. Participants include EPA community Involvement personnel from various agency regions, representatives of community based environmental justice organizations, and public health practitioners.

### **El Teatro Lucha de Salud del Barrio: Theater and Environmental Health in Texas**

Article on the use of Forum Theatre in a long term community engagement project under the NIEHS "EJ Partnerships for Communication" program

Read more at [http://wayback.archive-it.org/2077/20100906202911/http://www.communityarts.net/readingroom/archivefiles/2005/10/acrobats\\_of\\_the.php](http://wayback.archive-it.org/2077/20100906202911/http://www.communityarts.net/readingroom/archivefiles/2005/10/acrobats_of_the.php).

### **Popular Arts and Education in Community-Based Participatory Research (CBPR): On the subtle craft of developing and enhancing channels for clear conversations among CBPR partners.**

Sullivan J, Siqueira CE.

New Solut 2009;19(4):399-406 (Full text available, requires membership-

<http://baywood.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,2,13;journal,15,88;linkingpublicationresults,1:300327,1>)

#### **Abstract:**

Community-Based Participatory Research (CBPR) is a methodology hinged on flexible power relationships and unobstructed flow of expert and local knowledge among project partners. Success in CBPR depends on authentic dialogue, free flow of information, and trust. But accurate, unmediated, and timely channels of communication, while key to successful CBPR, are difficult to create and maintain. As participatory methodologies evolve, popular arts and education techniques have increasingly taken center stage as culturally fluent, bidirectional modalities for conveying information, building responsive channels for communication, promoting policy, and enhancing the effectiveness of grassroots organizing.



## Native American Environmental Justice

### Medicine Food: Critical Environmental Justice Studies, Native North American Literature, and the Movement for Food Sovereignty

Joni Adamson.

Environmental Justice. December 2011, 4(4): 213-219

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0035>). doi:10.1089/env.2010.0035.

#### Abstract:

The notion that people have a sovereign “right to food” is affirmed in an array of international instruments including the United Nations Declaration on Human Rights and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Indigenous peoples throughout the Americas began formally organizing around the concept of food sovereignty thirty years before the adoption of UNDRIP by convening meetings and summits that called attention to the ideologies and external forces that have been threatening indigenous food systems for hundreds of years. Aware of these hemispheric organizational activities, a number of Native North American poets and novelists began writing poetry and novels that illustrated the historic relationship between indigenous peoples and the foods that are culturally and nutritionally necessary to their survival. In this essay, I read Winona LaDuke's *Last Standing Woman* and Leslie Marmon Silko's *Gardens in the Dunes* as “case studies” that contribute to critical environmental justice studies by enhancing understanding of the reasons indigenous communities are organizing around foods such as wild rice and amaranth and creating international documents that position them to take a stand on global debates surrounding biodiversity, trade liberalization, and food sovereignty.

### Tribal Environmental Justice: Vulnerability, Trusteeship, and Equity under NEPA

Barbara Harper and Stuart Harris.

Environmental Justice. December 2011, 4(4): 193-197

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0037?journalCode=env>).

doi:10.1089/env.2010.0037.

#### Abstract:

The goal of environmental justice (EJ) is for all peoples to achieve the same degree of protection from environmental and health hazards. This suggests that impacts should be evaluated from the perspective of the affected community because only the community truly knows what is at risk from adverse impacts. If the EJ assessment is based solely on spatial analysis of demographic data with a criterion that 20% of a local community must be of a single ethnic group or below a certain income level in order to be recognized as an environmental justice community, then impacts to tribal natural resources and well-being will often be overlooked or significantly underestimated. When American Indian tribes and tribal resources are affected on or off a reservation, a proper impact assessment requires considerations of natural resource trusteeship, federal fiduciary trust



obligations across ceded or usual and accustomed areas, and the spatial distribution of natural resources that are potentially impacted. This can be done within a standard National Environmental Policy Act (NEPA) format by adding tribal narratives and tribal impact measures.

### **A Method for Tribal Environmental Justice Analysis**

Stuart Harris and Barbara Harper.

Environmental Justice. December 2011, 4(4): 231-237

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0038>). doi:10.1089/env.2010.0038.

#### **Abstract:**

The goal of environmental justice (EJ) is for all peoples to achieve the same degree of protection from environmental health hazards. Although each tribe is an independent sovereign nation and a single federal approach may not suit all tribes, this article presents an improved method for evaluating and quantifying potentially disproportionate impacts in tribal communities under the National Environmental Policy Act (NEPA). A critical first step in evaluating disproportionate impacts in tribal communities might be to determine the condition of natural resources used by, important to, or appertaining to tribes. The eco-cultural system or ethno-habitat relevant to the tribe and its resource interests can be described in narrative and quantitative terms. The features, attributes, goods, and services provided by the baseline conditions of the ethno-habitat and its resources can be described. Examples of quantifiable measures to evaluate interruptions in service flow and risks to traditional lifeways over multiple generations are suggested. A subsistence exposure scenario and risk assessment based on traditional lifeways can be included in this step, since risks to tribal members are likely to be higher than to non-native persons due to differences in the frequency and intensity of environmental contact. To evaluate cumulative impacts, existing co-risk factors that make the community more vulnerable can also be considered.

### **Self-Determining Environmental Justice for Native America**

James M. Grijalva.

Environmental Justice. December 2011, 4(4): 187-192

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0033?prevSearch=%252210.1089%252Fenv.2010.0033%2522&searchHistoryKey>). doi:10.1089/env.2010.0033.

#### **Abstract:**

Modern environmental law in the United States is predicated on federal-state partnerships that did not initially account for pollution and environmental degradation of Native America. The resulting regulatory gap threatened not only the human health of communities of color, but also the ability of indigenous peoples to self-determine their cultural destinies. Tribal self-determination is the nation's Indian policy, sought through government-to-government relationships predicated on the unique legal status of American Indian tribes as governments with inherent sovereign powers over their retained territories. Amended environmental laws now favor tribal self-determination as well;



tribal governments are eligible for many of the same federal program roles generally played by states outside Indian country. Comprehensive, fully functioning federal-tribal partnerships, animated by tribal environmental value judgments translated into federally enforceable requirements, provide a promising and culturally relevant opportunity for protecting and preserving the health and welfare of tribal citizens and their land-based indigenous culture.

### **Radical Adaptation, Justice, and American Indian Nations**

Sarah Krakoff.

Environmental Justice. December 2011, 4(4): 207-212

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0034?prevSearch=%252210.1089%252Fenv.2010.0034%2522&searchHistoryKey>). doi:10.1089/env.2010.0034.

#### **Abstract:**

Climate adaptation strategies typically involve making adjustments to laws about planning, resource allocation, and infrastructure to ensure that the built and natural environments will continue to support human communities. The question investigated here is related but distinct. This essay interrogates the necessary conditions for indigenous communities to survive, and perhaps even thrive, while maintaining their unique cultures in the face of dramatic and/or unknowable material circumstances. In other words, rather than ask how indigenous communities will adjust to the effects of a changing climate, this article asks what the essential conditions are for indigenous communities themselves to consider the extent, scope, and terms of any and all necessary adjustments. The history of the Cherokee Nation's adaptation to their forced removal from their homelands in the Southeast to Oklahoma, explored briefly here, provides an initial set of hypotheses about the core components for successful adaptation to radically different territorial circumstances.

### **Environmental Justice, American Indians and the Cultural Dilemma: Developing Environmental Management for Tribal Health and Well-being**

Darren J. Ranco, Catherine A. O'Neill, Jamie Donatuto, and Barbara L. Harper.

Environmental Justice. December 2011, 4(4): 221-230

(<http://online.liebertpub.com/doi/abs/10.1089/env.2010.0036?prevSearch=%252210.1089%252Fenv.2010.0036%2522&searchHistoryKey>). doi:10.1089/env.2010.0036.

#### **Abstract:**

Environmental justice in the tribal context cannot be contemplated apart from a recognition of American Indian tribes' unique historical, political, and legal circumstances. American Indian tribes are sovereign governments, with inherent powers of self-government over their citizens and their territories. Their status as sovereign entities predates contact with European settlers. This separate status, nonetheless, was affirmed by the United States early on and is enshrined in the U.S. Constitution. Tribes today continue to exist as distinct sovereigns within the boundaries of the United States.



### **Environmental Justice in Native America**

Kyle Powys Whyte.

Environmental Justice. December 2011, 4(4): 185-186

<http://online.liebertpub.com/doi/abs/10.1089/env.2011.4401?prevSearch=%252210.1089%252Fenv.2011.4401%2522&searchHistoryKey>). doi:10.1089/env.2011.4401.

### **The Recognition Dimensions of Environmental Justice in Indian Country**

Kyle Powys Whyte.

Environmental Justice. December 2011, 4(4): 199-205

<http://online.liebertpub.com/doi/abs/10.1089/env.2011.0036?prevSearch=%252210.1089%252Fenv.2011.0036%2522&searchHistoryKey>). doi:10.1089/env.2011.0036.

#### **Abstract:**

Environmental justice theories that incorporate recognition justice will be best suited to evaluating the fairness of government-to-government relations, tribal institutions, and the provision of funds. I will make the case for a recognition-based conception of environmental justice. Though recognition is important to environmental justice in Indian country, there are three principle challenges that it faces: the sheer particularity of the situations of different tribes, disagreements over what counts as traditional, and decisions by tribal governments that do not accord with many of the values of the environmental and environmental justice movements.



## Session Resources

### Concurrent Sessions #1

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

**Resources:**

The Grand Lake Mercury Study website: [www.grandlakemercurystudy.org](http://www.grandlakemercurystudy.org)

*What's in Your Fish*, a two-page fact sheet with key findings from the Grand Lake Mercury Study:  
[http://grandlakemercurystudy.org/images/Whats\\_In\\_Your\\_Fish.pdf](http://grandlakemercurystudy.org/images/Whats_In_Your_Fish.pdf)

A booklet with FAQs and more information about key findings from the Grand Lake Mercury Study:  
[http://grandlakemercurystudy.org/images/Findings\\_Booklet.pdf](http://grandlakemercurystudy.org/images/Findings_Booklet.pdf)

Flocks J, Kelley M, Economos J, McCauley L. 2012. Female farmworkers' perceptions of pesticide exposure and pregnancy health. *J Immigr Minor Health*. 14(4):626-632.  
<http://www.ncbi.nlm.nih.gov/pubmed/22094390>

Runkle JD, Tovar-Aguilar JA, Economos E, Flocks J, Williams B, Muniz JF, Semple M, McCauley L. In press. Pesticide Risk Perception and Biomarkers of Exposure in Florida Female Farmworkers. *Journal of Environmental and Occupational Medicine*.

Joan Flocks J, Vi Thien Mac V, Runkle JD, Tovar-Aguilar JA, Economos E, McCauley L. In press. Female Farmworkers' Perceptions of Heat-related Illness and Pregnancy Health. *Journal of Agromedicine*.

Kelley MA, Flocks J, Economos J, McCauley LA. In press. Female Farmworker's Health During Pregnancy: Health Care Providers' Perspectives. *Workplace Health & Safety*.

#### *Innovative Tools and Technologies for Environmental Public Health Research*

**Resources:**

Public Laboratory (<http://publiclab.org/>)

EgoNet (<http://sourceforge.net/projects/egonet/>)



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

### **Resources:**

Allcock, M., Graves, N., Gray, K., Troester, M.A. "African American Women's Perspectives on Breast Cancer: Implications for Communicating Risk of Basal-like Breast Cancer." *Journal of Health Care for the Poor and Underserved* 24.2 (2013): 753-767. The link to the article is here:  
[http://muse.jhu.edu/journals/journal\\_of\\_health\\_care\\_for\\_the\\_poor\\_and\\_underserved/v024/24.2.allcock.html](http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/v024/24.2.allcock.html).

## *Addressing 'Research Disparities': Building Connections to Build Capacity*

### **Resources:**

U.S. Department of Health & Human Services Environmental Justice Plan:

Training: <http://www.hhs.gov/environmentaljustice/strategy.html#strated>

Research: <http://www.hhs.gov/environmentaljustice/strategy.html#stratresearch>

National Conversation: <http://www.nationalconversation.us/action-agenda/chapter-4-communities>

## **Concurrent Sessions #2**

### *Examining Environmental Determinants of Health and Engaging Communities around EPH Issues Using Geographic and Spatial Analysis*

### **Resources:**

American Journal of Public Health issue on disproportionate environmental health impacts:  
[http://www.epa.gov/ncer/events/news/2011/10\\_25b\\_11\\_feature.html](http://www.epa.gov/ncer/events/news/2011/10_25b_11_feature.html)

The 2010 Disproportionate Impacts Symposium: Strengthening Environmental Justice Research and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts  
[http://www.epa.gov/ncer/events/news/2010/03\\_17\\_10\\_calendar.html](http://www.epa.gov/ncer/events/news/2010/03_17_10_calendar.html)

Follow-up actions from the 2010 Disproportionate Impacts Symposium:  
<http://www.epa.gov/ncer/ehs/ej/ongoing-actions-ej.pdf>

EPA Plan EJ 2014 Science Implementation Plan  
<http://www.epa.gov/compliance/ej/resources/policy/plan-ej-2014/plan-ej-science-2011-09.pdf>



Meharry Blog

<http://meharryblog.mmc.edu/?p=64>

Evidence for Informing the Next Generation of Quality Improvement Initiatives: Models, Methods, Measures, and Outcomes

[http://muse.jhu.edu/journals/journal\\_of\\_health\\_care\\_for\\_the\\_poor\\_and\\_underserved/toc/hpu.23.3A.html](http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.23.3A.html)

### ***Inequities Persist: Environmental Justice from a Native American Perspective***

**Resources:**

Healthy Voices (<http://healthyvoices.org>)

Navajo Birth Study ([http://www.youtube.com/watch?v=kcJebbN4e\\_I](http://www.youtube.com/watch?v=kcJebbN4e_I))

### ***Community Experience of Contaminated Communities: Contributions from the Social Sciences***

**Resources:**

*General Organizations on Health and the Environment that Deal With Community Impacts*

Center for Health, Environment and Justice- <http://www.chej.org/>

(Very important national organization run by Lois Gibbs)

Toxics Action Center- <http://www.toxicsaction.org/>

(New England-wide toxics resource center)

Alliance for a Healthy Tomorrow- <http://www.healthytomorrow.org>

(Massachusetts organization based on precautionary principle, with over 100 affiliated organizations)

*Collaborative Initiative for Research Ethics in Environmental Health-*

<http://brown.edu/research/research-ethics/>

(Research and education on community-based participatory research in environmental justice)

Commonweal- <http://www.commonweal.org>

(Combines toxics activism with cancer support groups and spiritual programs)

Collaborative on Health and the Environment- <http://www.cheforhealth.org/>

(Partnership of many organizations, tied to Commonweal)

Pesticide Action Network- <http://www.panna.org/>



Health Care Without Harm- <http://www.noharm.org/>  
(Works to produce environmentally sustainable health care facilities)

Environmental Working Group- <http://www.ewg.org/>  
(Conducted influential body burden study)

Children's Environmental Health Network- <http://www.cehn.org/>

Science and Environmental Health Network- <http://www.sehn.org/>

Scorecard (Environmental Defense)- <http://www.scorecard.org/>  
(Major resource center for toxic chemicals, especially by geographical location)

Silent Spring Institute- [www.silentspring.org](http://www.silentspring.org)  
(Leader in reporting environmental health data back to participating communities)

#### *Environmental Justice Organizations*

Alternatives for Community and Environment (Boston)- <http://www.ace-ej.org/>

West Harlem Environmental Action (New York)- <http://www.weact.org/>

Environmental Justice Resource Center (Clark Atlanta University)- <http://www.ejrc.cau.edu/>

Environmental Justice League of Rhode Island- [www.Ejlrj.wordpress.com](http://www.Ejlrj.wordpress.com)

Silicon Valley Toxics Coalition- [www.svtc.org](http://www.svtc.org)

Concerned Citizens of Tillery (North Carolina)- <http://www.cct78.org>

Southwest Organizing Project (Albuquerque, NM)- <http://www.swop.net/>

Environmental Health Coalition (San Diego)- <http://www.environmentalhealth.org>

#### *General News Sources*

Above the Fold (Environmental Health News)- <http://www.environmentalhealthnews.org/>

#### *GIS Research Tools*

Mapcruzin- <http://www.mapcruzin.com/>  
(Extensive network of GIS and related geographic-level material on toxics)



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## Day 1 General Session

### *Institutional Review Boards and Community Engaged Research: How Can Universities and Community Organizations Work Together to Strengthen the Ethics Review of Community Based Research?*

#### **Resources:**

Community-Campus Partnerships for Health (CCPH) Conference (<http://www.ccpb.info>)

CCPH's CBPR Resources (<http://depts.washington.edu/ccph/commbas.html>)

Links for call series proceedings and the March 2012 meeting report - posted on the CCPH website at <http://depts.washington.edu/ccph/irbhome.html>

CIRTification: Community Involvement in Research Training produced by Dr. Emily Anderson of the Community Engagement and Research Core Ethics Committee of the University of Illinois at Chicago (UIC) Center for Clinical and Translational Science and C3, the Chicago Consortium for Community Engagement, freely available at: <http://go.uic.edu/CIRTification>

NIEHS Office of Human Research Compliance and IRB Resources can be found at <http://www.niehs.nih.gov/research/clinical/join/ohrc/index.cfm> and <http://www.niehs.nih.gov/about/boards/irb/index.cfm>.



## Concurrent Sessions #3

### *Cumulative Exposures: The Role of Epidemiology in Elucidating Environmental Contributions to Health Disparities*

#### **Resources:**

Independent and Joint Associations between Multiple Measures of the Built and Social Environment and Physical Activity in a Multi-Ethnic Urban Community.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=Independent+and+joint+associations+between+multiple+measures+of+the+built+and+social+environment+and+physical+activity+in+a+multi-ethnic+urban+community>

Social and Physical Environments and Disparities in Risk for Cardiovascular Disease: The Healthy Environments Partnership Conceptual Model

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1314928/?tool=pmcentrez>

### *Conflicts over Research that Identifies Community Impacts of Environmental Exposures*

#### **Resources:**

*In Harm's Way* – investigative series on east end Houston ambient air quality for Houston Chronicle by Dina Capiello.

<http://www.chron.com/news/article/Chronicle-cross-county-study-reveals-risky-load-1643020.php>

Preliminary Epidemiologic Investigation of the Relationship between the Presence of Ambient Hazardous Air Pollutants (Haps) and Cancer Incidence in Harris County. Authors: Kristina M. Walker, Ann L. Coker, Elaine Symanski, Philip J. Lupo

<http://www.houstontx.gov/health/UT-executive.html>

“Comparative Assessment of Air Pollution–Related Health Risks in Houston.” Authors: Ken Sexton, Stephen H. Linder, Dritana Marko, Heidi Bethel, and Philip J. Lupo

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2022677/>

“Childhood Lymphohematopoietic Cancer Incidence and Hazardous Air Pollutants in Southeast Texas,” 1995–2004. Authors: Kristina W. Whitworth, Elaine Symanski, and Ann L. Coker

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2592281/>

“A Closer Look at Air Pollution in Houston: Identifying Priority Health Risks”

A summary of the *Report of the Mayor's Task Force on the*

*Health Effects of Air Pollution*. Authors: Bethel, Sexton, Linder, Abramson, Bondy, Frasier, Ward

<http://www.epa.gov/ttnchie1/conference/ei16/session6/bethel.pdf>



“Separate but Toxic: The Houston environmental magnet school that's an environmental catastrophe”

Author: Dave Mann

<http://www.texasobserver.org/2451-separate-but-toxic-the-houston-environmental-magnet-school-thats-an-environmental-catastrophe/>

*Sacrifice Zones: The front lines of toxic chemical exposure in the United States*

Author: Steve Lerner. MIT Press: Cambridge MA. 2010. (EHP review)

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3114843/>

*Women Pioneers of the Louisiana Environmental Movement.*

Author: Peggy Franklin, Susan Tucker. University of Mississippi. 2013

<http://www.jstor.org/stable/j.ctt24hvg9>

*The Ungreening of America: No clear skies*

Author: Donovan Webster & Michael Scherer

<http://www.motherjones.com/environment/2003/09/ungreening-america-no-clear-skies>

Assessing the Effects of the Gulf of Mexico Oil Spill on Human Health: a summary of the June 2010 Workshop.

<http://www.nap.edu/catalog/12949.html>

Investigation: Two Years after the Oil Spill, a Hidden Health Crisis Festers. Author: Antonia Juhasz

<http://www.thenation.com/article/167461/investigation-two-years-after-bp-spill-hidden-health-crisis-festers#axzz2XRCezE22>

One dead, scores injured in Louisiana chemical plant explosion. NBC news story. Author: Matthew DeLuca

<http://usnews.nbcnews.com/news/2013/06/13/18936624-one-dead-scores-injured-in-louisiana-chemical-plant-explosion?lite>

Bayou Corne Sinkhole Monitoring Flight, 5/6/13

<http://leanweb.org/our-work/community/public-health/bayou-corne/bayou-corne-sinkhole-monitoring-flight-5-6-13>.

*Institutional Research Misconduct.* Investigating the manipulation of science by government, industry or academia to support government policies and industry practices. David L. Lewis, Ph.D.

[www.researchmisconduct.org](http://www.researchmisconduct.org)

“Majora Carter spends a day with Wilma Subra as she travels from her office in New Iberia — past town after town she’s helped with environmental concerns during the last 30 years. Their trip culminates in the coastal communities of Grand Isle and Venice, Louisiana, where she’ll be taking water and sediment samples



*and meeting with community members whose concerns are now the focus of her investigation.” (Video Interview)*

<http://www.thepromisedland.org/episode/12-wilma-subra>

*“Committed to protecting the environment and the health and safety of citizens, Wilma Subra started Subra Company in 1981. Subra Company is a chemistry lab and environmental consulting firm in New Iberia, LA. Mrs. Subra provides technical assistance to citizens, across the United States and some foreign countries, concerned with their environment by combining technical research and evaluation.” (Video interview)*

<http://bpoilslick.blogspot.com/2013/04/dr-wilma-subra-voices-from-gulf.html>



## Recommendations from Previous Meetings

### Symposium on Health Research and Needs to Ensure Environmental Justice

1994

*[NOTE: The following recommendations are taken from the original document.]*

#### Core Groups 1-3

1. Allow communities to speak for themselves rather than have consultants do it. Typically, a community will do initial research on its environmental problem, then hand it over to scientists and other experts. When these intermediaries report to government agencies, they often don't accurately reflect community concerns.
2. Ensure government validation of a community's experience with an environmental problem, rather than dismissing community reports. The government should work on behalf of people, not industry. Any penalties or fines imposed on an industry by a regulatory agency should be turned over to affected communities.
3. Increase government funding to communities, fully inform communities about available funding, and provide technical assistance with the application process so communities can more readily obtain funding.
4. Ensure that researchers must explain to community members what data they need to study an environmental problem, then report their findings to the community in an understandable format.

#### Core Groups 4-7

1. Respond to the urgent need for public education and outreach efforts, so communities can be more involved in their own protection. Two possibilities are how-to clinics and in-home clinics that teach people about, for example, radon poisoning in their communities.
2. Inform the public about the effects of products they use on the environment. Products should be priced to reflect their impact on the environment.
3. Establish an environmental information network independent of government or industry. It should include a telephone hotline, a clearinghouse, and computer networking. Government agencies should give communities computer hardware and software that is user-friendly and connected to data-collection systems that are independent of the government and should provide computer training to community members.
4. Establish legal safeguards so "whistle-blowers" who report violators will not face retribution.
5. Increase ethnic and cultural diversity on the staffs of government agencies, particularly in positions that require contact with affected communities. Too often, agencies hire white males to investigate situations in which most complainants are black women. Because these groups have divergent sensibilities, misunderstanding results.
6. Honor whistle-blowers and protect their legal rights.
7. Ensure that consumers have the right to sue the government when they are affected by environmental pollution.
8. Subject corporations (and executive officers) who knowingly violate regulations to criminal penalties. President Clinton's "three strikes and you're out" policy with criminals should apply to corporations: Imprisonment should be mandatory for executives who head companies that habitually violate environmental regulations.
9. In legal cases concerning chemical toxicity, shift the burden of proof so chemicals are considered toxic until proven safe.



[Note: No recommendations were listed as deriving from Core Group 8.]

### **Core Groups 9-11**

1. Eliminate unsafe pesticides used in the United States and exported abroad.
2. Increase action to reduce farmworkers' exposure to known toxins, such as lead in paint and soil.
3. Increase research on asthma, particularly among people of color, and take more action against known causes of asthma.
4. Generate a written report of symposium proceedings.
5. Agencies sponsoring the symposium should plan the next step.
6. Community members need financial support to have real participation in the next symposium. Agencies must provide travel and lodging costs.
7. Ensure that researchers recognize local expertise in environmental health matters and that any government intervention be done in partnership with the community. In researching an environmental problem, the burden of proof should be removed from victims and placed on the hazardous materials themselves. Enact, strengthen, or enforce legislation that gives everyone equal protection against environmental degradation. Civil and criminal penalties against violators should be increased, and existing legislation (including the Clean Air Act, Clean Water Act, Superfund, and pesticide legislation) should be strengthened. A Superfund should be created to provide job training for workers who lose their jobs because of environmental technologies or innovations.

### **Core Groups 12-15**

1. Repeal the Werner Amendment, which guarantees sovereign immunity. The amendment makes it impossible for citizens to sue the government; repeal would give them that right.
2. Make all communication materials in the environmental justice arena multilingual so all linguistic groups in the population can understand them. Similarly, all communication materials must use simple, clear language instead of technical jargon.
3. Revamp the funding process.
  - Eliminate government subsidy of corporations and redirect the money to community justice groups. Generate new sources of funding by making polluters pay fines; direct that money to local justice groups. This move switches control of funding from government and industry to citizens.
  - Eliminate provisions for local justice groups to receive reimbursement for their expenses. They need the funding up front.
  - Simplify procedures for obtaining grants so community groups can apply more easily for them. Let community groups set up general criteria for awarding grants, and let community committees oversee funding and research. Draft legislation and regulations that require community-based organizations to be included in the funding process.
4. Mandate institutional change. Overhaul personnel, hiring, and evaluation procedures in government agencies and academic institutions so that staff and leadership reflect the cultural diversity of the community being served. Enforce laws that require such change.
5. Ensure that recommendations made at this symposium are enacted. Report accomplishments of the symposium to the public and hold a followup conference.
6. Insist on full disclosure of all relevant data and let communities use data on their own behalf. Communities often are not given access to data. Once they have access, they are not allowed to use the data for their own purposes.



### **Core Group 16**

1. Establish an interagency forum to address environmental justice issues to make certain that involved agencies are aware of their roles and will not duplicate efforts.
2. Ensure that the interagency group is actively involved in affected communities, educating residents and allowing them to set the agenda for further action.
3. Ensure followup to this symposium, so the report of its results is not shelved and forgotten.
4. Encourage agency employees to stand together with community workers to get things done. Many agency employees seem to be good people with a lot of heart, who say their hands are tied until citizens get their legislators to enact laws that allow agency people to act.

### **Core Group 17**

1. When addressing any case of environmental injustice, include community groups from the outset, along with local health and environmental agencies and State and Federal groups (such as Congress and the Departments of Justice, HUD, Labor, and the Interior).
2. Make all relevant information available to affected communities in their own languages; include videotapes that illiterate citizens can understand.
3. Provide money to include professionals in the communities, such as local toxicologists, in environmental justice efforts; they will ensure that community members aren't "snowed under" with technical jargon from government and industry representatives.
4. Urge symposium organizers to obtain a signed executive order so all participants return to their communities with something solid to show for this conference and a starting point for further work.

An unidentified speaker from the core group said that risk assessment is a concern to indigenous people, who believe there are no acceptable levels of environmental contamination. A clean environment is the fundamental right of Native Americans, who have a long history of resource management based on detailed understanding of long-range impacts on the environment. The use of risk assessment as a tool and policy allows activities that damage the land, animals, and people. Indigenous people assert the right to reject levels of contamination that industrial societies consider acceptable. The position of indigenous peoples, which must be considered in environmental studies conducted in their territories, is as follows:

1. Precedence must be given to traditional considerations over economic considerations in determining the future of Native American children.
2. Educational programs in indigenous communities should reflect traditional values.
3. Tribal representatives and representatives of Federal agencies should be trained in and sensitized to traditional values.
4. Funding should be adequate to ensure implementation of traditional values.
5. Indigenous peoples must be equally involved in decisions, and health research must consider all parameters identified as important by indigenous people.
6. A permanent ombudsman position should be established in Federal agencies that interact with indigenous people and should include oversight authority on programs affecting indigenous communities.
7. An electronic information network must be established, ensuring that indigenous people have the opportunity to identify problems and initiate proposals.

### **Core Groups 18-20**

1. Recognize that people are not a tool for science; science is a tool for people. Scientific knowledge has limits. Other "ways of knowing" are as valid as are scientific ways.



2. Ensure that research is done in the community, for the community, by the community. No more research should conclude there is no solution to an environmental problem, nor make it appear that the government has done something useful about a problem when it has not.
3. Ensure that the purpose of environmental research is explicitly clear to everyone involved from the outset and serves the needs of the community instead of the needs of industry or government.
4. Do not tolerate negative research that is designed to prove that there is no environmental problem.
5. Ensure that researchers empower the community and involve community members, not exploit them.
6. Ensure that community members are involved at all stages of a research study, including defining the problem, designing the research, gathering the data, analyzing the findings, and publishing the results.
7. Disseminate findings so that people are aware of and can use the information.
8. Encourage partnerships among government agencies, research institutions, and community members. These relationships are essential and must be characterized by mutual respect and recognition of the different "ways of knowing."

A final speaker declared that the scientific and environmental justice communities must jointly develop a new model for environmental research that includes affected communities as active participants in the research. Citizens must be involved in planning and conducting studies, disseminating results, generating hypotheses, discovering new problems, interpreting results, and ensuring that study results are translated into appropriate public health action whenever possible. New epidemiologic models and methodologies must be developed to analyze smaller population groups, cluster phenomena, low-dose exposures, and exposures to multiple toxins. Recruiting, advancing, and retaining people of color and members of affected communities must be a high priority. Environmental research has included the regular practice of omitting, suppressing, and destroying information critical to environmental health. Burdens of scientific proof ignore the norms of most communities that need environmental research. New molecular technologies will have an increasing impact on risk assessment and policy formulation. The environmental justice movement must target the development of these tools to serve affected communities.

## **Building Healthy Environments to Eliminate Health Disparities Symposium**

2003

[NOTE: The following was taken from the full meeting report-

<http://www.epa.gov/compliance/ej/resources/reports/annual-project-reports/health-disparities-symposium-2003.pdf>.]

### **Recommendations and Next Steps**

On May 28 and 29, 2003 in Washington, D.C., the U.S. Department of Health and Human Services (HHS), Office of Minority Health (OMH) and U.S. Environmental Protection Agency (EPA), Office of Environmental Justice (OEJ) cosponsored the Building Healthy Environments to Eliminate Health Disparities symposium for senior-level Federal government employees. This symposium was the first to explore the intersection between health disparities and environmental justice and the ways in which Federal agencies can develop proactive, comprehensive, and integrated strategies to build healthy environments in communities suffering from health disparities.

The symposium built on the momentum created by HHS's National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health in July 2002. As a direct result of this summit, the Health Disparities and



Environmental Justice Task Force consisting of 20 members from various agencies was convened in October 2002. Nathan Stinson, Jr., PhD, MD, MPH, Deputy Assistant Secretary for Minority Health, HHS and Charles Lee, Associate Director for Policy and Interagency Liaison, OEJ, EPA, co-chair the task force.

The expected outcomes of the symposium were to:

- Identify promising practices from each participating agency.
- Promote better discussion, coordination, and collaboration.
- Develop a framework for building healthy environments to eliminate health disparities, including:
- Holistic, integrated approaches to building healthy communities by addressing both the physical and social environments.
- Effective partnership development with and capacity building of communities to address environmental, health, and sustainability issues.
- Improved translational implementation strategies that link programmatic knowledge and resources with action.

This symposium was the first step in a series of meetings to be organized to mobilize strong partnerships within HHS and with EPA and other Federal agencies. Over 100 individuals from over 12 different agencies participated. Future coordinated activities will be planned to further expand the knowledge base and seek the active participation of affected minority communities.

### **Next Steps**

Addressing the challenge of environmental justice and health disparities is a long-term process, and to be successful, forward progress must be maintained. Dr. Stinson suggested building on the results of this symposium through the following steps:

- Build on new interagency relationships. This symposium has allowed us to develop a new network within the Federal government to maintain communication, share ideas, and help coordinate and champion these efforts.
- Make strategic investments. This symposium focused on examining how Federal agencies can make of a bigger investment in addressing specific issues—through collaborations, economies of scale, reducing overlap, and investing in the right areas.
- Begin the planning process for the next meeting. The IWG will debrief on what was learned from this symposium and begin exploring how to engage communities to identify real priorities, successes, and how to shape knowledge at the local level to provide valuable assets and tools.

### **Recommendations Summary**

Throughout the symposium, several recommendations were also made. These recommendations summarized in five major areas: strategic communications, strengthening the science base, building partnerships, policy development and evaluation, and linking people to health services.

### **Strategic Communications**

- Facilitate communications among all parties working to improve local environmental health.
- Better educate the general public, politicians, and individuals in medical education about key issues.
- Coordinate the promotion of important nutritional messages among the several Federal, state, and local programs, agencies, and organizations.
- Develop educational materials with community environmental health information that is not readily accessible.



- Create a health directory or office to help navigate through the Federal agencies involved in environmental justice and health disparity issues.

### **Strengthening the Science Base**

- Use a Healthy Communities Model that incorporates community capacity, physical and social environment, environmental health stressors, and public health outcomes/healthy communities and their interactions.
- Develop methods to study environmental impact using a wellness model.
- Provide long-term support and modestly increase funding for community-based, community-controlled research.
- Provide research training for community and youth and cultural sensitivity training for visitors.
- Reward and appreciate community researchers outside academia and NIH.
- Sponsor pilots to advance practice.
- Develop practical assessment tools.
- Develop methods to study small populations.
- Believe in your medicine and the future. Accept and incorporate traditional ecological knowledge into Federal and state agencies and programs.

### **Building Partnerships**

- Achieve integration of collaborative interagency and community partnerships that capture environmental justice principles and address health disparities to ensure that the resources are spent in the most productive ways.
- Build the capacity of communities through effective partnerships.
- Work more collaboratively with state officials.
- Establish ongoing method to coordinate, evaluate, and improve Federal efforts.

### **Policy Development and Evaluation**

- Ensure that attention and resources are focused in ways that produce real impact.
- Build stronger connections between land use decisions, communities, and the public health process.
- Remove the burden of proof from the public.
- Promote physical education and healthier food choices in schools.
- Recognize that action is everything for environmental justice communities.
- Determine who will pay for expensive new technologies to address health disparities and when.
- Recognize emotional and spiritual well-being when appraising acceptable risks.
- Determine acceptable level of toxins from the perspective of what is acceptable to your family.
- Provide more funds to help tribes build their own environmental management infrastructure, as well as for tribe health and surveillance.
- Achieve legislative support for tribal sovereignty.
- Establish free standing American Indian/Alaska Native (AI/AN) Committees for all Federal agencies and in states with tribal land within their boundaries
- Develop new strategies for contaminated sites that take tribal rights into account.

### **Linking People to Health Services**

- Identify practical solutions to common community concerns.
- Train all health care professionals in environmental medicine.



- Increase the number of summer externships and/or rotations for medical students, dental students, nurses, and other health care practitioners in the area of environmental medicine.
- Create faculty development programs in environmental medicine.
- Fund residency training in environmental medicine.
- Continue to provide continuing medical education in environmental medicine for physicians in practice.
- Adopt an interagency approach with Congress to addressing access to care and funding.
- Explore the use of telemedicine to enable primary care physicians to consult with occupational and environmental health specialists.
- Organize training that integrates all aspects of environmental health, including partnerships, capacity building, and risk assessment.

## National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health

2006

[NOTE: The following was taken from the Office of Minority Health/National Partnership for Action web page- <http://minorityhealth.hhs.gov/npa/templates/browse.aspx?lvl=1&lvlid=11.>]

Nearly 2,000 committed individuals attended the National Leadership Summit for Eliminating Racial and Ethnic Disparities in Health sponsored by the HHS Office of Minority Health (OMH). They provided the impetus to broaden the dialog beyond the health community, and establish the National Partnership for Action (NPA) (<http://minorityhealth.hhs.gov/npa/templates/browse.aspx?lvl=1&lvlid=11>) as a national movement. The summit stimulated a systems-oriented approach that addresses crosscutting, multilevel issues.

OMH responded by formulating initial NPA goals, but sought to establish the priorities for a national strategy using a community-oriented approach.

The process for developing what became the National Stakeholder Strategy was deliberate. It began by obtaining the views of community leaders and other stakeholders. Small "Community Voices" meetings, other focused sessions, and larger "Regional Conversations" stimulated analysis, input, and content refinement from community, professional, business, government, academic, and other representatives.

Throughout this process, a Federal Interagency Health Equity Team, now comprising representatives of HHS and 11 other Federal, cabinet-level departments, coordinated federal efforts.

Ultimately, a draft strategy was published for public review, and more than 2,000 comments were received, analyzed and considered.

The result is the *National Stakeholder Strategy for Achieving Health Equity (National Stakeholder Strategy)* (<http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286>). It is a roadmap for eliminating health disparities through cooperative and strategic actions. *Regional Blueprints for Action* will align with the *National Stakeholder Strategy* to help guide action at the local, state, and regional levels. Targeted initiatives will be organized by partners across the public and private sectors in support of the NPA.

A second outcome is the HHS Action Plan to Reduce Racial and Ethnic Health Disparities



(<http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=285>), which was released together with the National Stakeholder Strategy.

It outlines goals and actions HHS will take to reduce health disparities among racial and ethnic minorities. It builds on provisions of the Affordable Care Act.

It will be used by HHS agencies to assess the impact of policies and programs on racial and ethnic health disparities, and to promote integrated approaches, evidence-based programs and best practices to reduce these disparities.

### **Health Disparities Summit**

*2008*

The Summit highlighted many of the complex biological and non-biological factors that influence health outcomes. Sessions offered best practice models in research, training, career development, clinical intervention, community outreach, and policy, being applied in communities around the nation and in different countries. Summit participants also had the opportunity to dialogue on topics related to health disparities such as health care reform, social determinants of health, partnerships, community, media, policy, science, and clinical practice involvement in health disparities, to provide input into shaping an aggressive agenda to eliminate health disparities.

<http://www.nimhd.nih.gov/spotlight/nihsummit.asp>

### **National Conversation**

*2009*

The goal of this initiative was to develop an Action Agenda with clear, achievable recommendations to help government agencies and other organizations strengthen their efforts to protect the public from harmful chemical exposures. CDC and ATSDR engaged a broad range of groups and individuals—government agencies, professional organizations, tribal groups, community and nonprofit organizations, health professionals, business and industry leaders, and members of the public — to develop the Action Agenda (<http://www.nationalconversation.us/>).

#### **Chapter 3: Achieve a More Complete Scientific Understanding of Chemicals and Their Health Effects**

<http://www.nationalconversation.us/action-agenda/chapter-3-science>

#### **Chapter 4: Protect Health and Wellness in Vulnerable Communities Affected by Environmental Chemical Exposures**

<http://www.nationalconversation.us/action-agenda/chapter-4-communities>

#### **Chapter 5: Strengthen the Public's Ability to Participate Effectively in Environmental Health Decision Making**

<http://www.nationalconversation.us/action-agenda/chapter-5-public-engagement>



## **Strengthening Environmental Justice Research and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts**

*March 17-19, 2010*

### **Research Needs Identified**

Symposium participants recommended several actions to reduce research or data gaps, overcome limitations in the theories and methods for conducting environmental research, particularly research supported by federal government, and limitations in practice of risk assessment. The science recommendations are described on the web page listed below. The first sentence is a summary statement meant to capture the main points of the individual recommendations from the Symposium that follow, including recommendations from the Environmental Justice-Caucus letter that was sent to Lisa Garcia, Senior Advisor to EPA Administrator for Environmental Justice. --

<http://www.epa.gov/ncer/events/calendar/2010/mar17/research.html>

Follow-up actions from the 2010 Disproportionate Impacts Symposium:

<http://www.epa.gov/ncer/ehs/ej/ongoing-actions-ej.pdf>

EPA Plan EJ 2014 Science Implementation Plan

<http://www.epa.gov/compliance/ej/resources/policy/plan-ej-2014/plan-ej-science-2011-09.pdf>

## **HHS Environmental Justice Implementation Meeting**

*2012*

U.S. Department of Health & Human Services Environmental Justice Plan

The 2012 HHS EJ Strategy (<http://www.hhs.gov/environmentaljustice/strategy.html>) provides direction for HHS efforts to achieve environmental justice as part of its mission by: (1) identifying and addressing disproportionately high and adverse human health and environmental effects on low-income populations and Indian Tribes, and (2) encouraging the fair treatment and meaningful involvement of affected parties with the goal of building healthy, resilient communities and reducing disparities in health and well-being associated with environmental factors. Driven by public input and HHS support, the strategy maintains the following three guiding principles:

- Create and implement meaningful public partnerships
- Ensure interagency and intra-agency coordination
- Establish and implement accountability measures

The 2012 HHS EJ Strategy is organized into four strategic elements; (1) Policy Development and Dissemination, (2) Education and Training, (3) Research and Data Collection, Analysis, and Utilization, and (4) Services. The 2012 HHS EJ Strategy reflects new and ongoing actions to be undertaken by HHS. The heightened coordination within and outside of HHS and the engagement of communities and other stakeholders will facilitate the implementation of the 2012 HHS EJ Strategy and support the realization of the vision.

Training: <http://www.hhs.gov/environmentaljustice/strategy.html#strated>

Research: <http://www.hhs.gov/environmentaljustice/strategy.html#stratresearch>



## Science of Eliminating Health Disparities Summit

2012

### Summit Goals

The 2012 Summit focused on Building a Healthier Global Society by Integrating Science, Practice, and Policy, and specifically aims to:

- Provide scientific evidence to inform immediate policies and actions to confront health disparities issues facing regional, national and global societies
- Provide the practical steps on how the scientific evidence for addressing health disparities could be translated into practice in different communities and global settings
- Identify practical innovations in translational research to inform practice and policy
- Gather recommendations on evidence-based science policy and practical objectives and measures that can be tracked for progress over the next ten years
- Publish recommendations and findings that will contribute to the development of an integrated strategy for addressing national and global inequality

[http://nihrecord.od.nih.gov/newsletters/2013/02\\_01\\_2013/story2.htm](http://nihrecord.od.nih.gov/newsletters/2013/02_01_2013/story2.htm)

