



Environmental Health Sciences – Roundtable Meeting #25

Christine Coussens, Ph.D. – *Study Director*



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Genesis for the Meeting

- Request from the office of the Assistant Secretary of Health
- Looking for opportunities to engage with the Roundtable on environmental health issues
- Informal discussion on environmental health research



Environmental Contribution to Health Disparities: Where the Health Burden Is

*Nadine Gracia – Chief Medical Officer in the Office of the
Assistant Secretary for Health at HHS*

Interagency Working Group on Environmental Justice (EJ IWG)

Established by President Clinton in 1994 via Executive Order 12898

Provides guidance to Federal agencies on identifying and addressing disproportionately high and adverse human health or environmental effects on minority, low-income, and tribal populations

Reconvened by EPA Administrator Lisa Jackson and CEQ Chair Nancy Sutley on September 22, 2010



Action Steps of EJ IWG

Hold monthly EJ IWG meetings, including assigning senior officials from each agency to coordinate EJ activities

Plan a White House forum for EJ leaders and stakeholders on Environmental Justice

Organize regional listening sessions in early 2011

Hold follow-up EJ IWG Principals Meetings in April and September 2011

Each agency will be tasked to develop or update their EJ strategy by September 2011



U.S. Department of Health and Human Services Environmental Justice Strategy (1995)

Goal: To ensure that disproportionately high and adverse environmental and health effects experienced by low-income and minority populations are addressed, as appropriate, in the programs of the Department of Health and Human Services (HHS), and that these programs encourage the full involvement of affected parties.

Six Pillars

- § Public Partnerships
- § Public Education and Training
- § Services
- § Data Collection and Analysis
- § Health Research
- § Interagency Coordination

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Integrated Federal Interagency EJ Action Agenda (2000)

Goal: To build dynamic and proactive partnerships among Federal agencies to benefit environmentally and economically distressed communities

Key areas of focus

- § Promote greater coordination and cooperation among Federal agencies
- § Make government more accessible and responsive to communities
- § Ensure integration of environmental justice in policies, programs, and activities of Federal agencies

Initiated 15 EJ demonstration projects around the country

- § Learn how Federal agencies can better collaborate to ensure local problem-solving
- § Develop a template for integrated community-based solutions to environmental justice issues

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Environmental Contribution to Health Disparities: Where the Health Burden Is *continued*

John Balbus – Roundtable Member

- The initial approaches that HHS is taking and within the U.S. Global change Research program on the issue of climate justice and how it relates to public health and environmental justice.

- § Climate Change heightens disparities between rich and poor in terms of health and well-being on local as well as global scales.

- WHO estimated a global total of approximately 140,000 deaths in one year attributable to climate change.

- Over 95% of that burden is felt by lower-middle income countries.

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Environmental Contribution to Health Disparities: Where the Health Burden Is *continued*

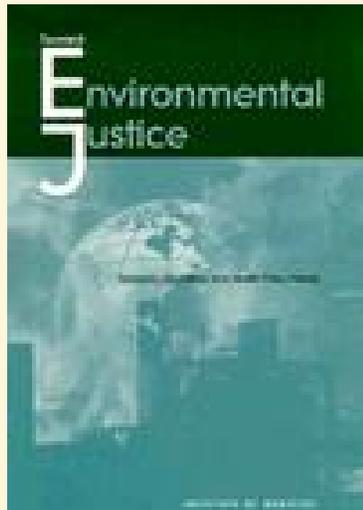
John Balbus – Roundtable Member

- The first approach, the impact side, focuses on vulnerable populations.
- The other area of emphasis is the linkage between health disparities as an underlying driver of disparate impacts since climate change acts as a force multiplier.

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IOM's Environmental Justice Report

Don Mattison – Co-Chair of the Committee on Environmental Justice

Toward Environmental Justice

Public health and political context for Committee(1996 – 1999)

- § Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities, GAO 1983
- § Toxic Wastes and Race in the United States, United Church of Christ, Commission on Racial Justice, 1987
- § Dumping in Dixie: Race, Class and Environmental Quality, Bullard, 1990
- § Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994
- § The Promise and Peril of Environmental Justice, Foreman 1998

Clear disparities in

- § Exposures
- § Health status
- § Linkage lacking

Political and legislative complexity

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Toward Environmental Justice

Committee to assess adverse human health effects in communities of concern

- § Recommend approaches; public health, biomedical research, education and health policy

Charge to the committee, provide independent assessment of

- § Medical and health issues arising from concept of environmental justice
- § Roles of basic research and medicine in addressing these issues
- § Priorities for medical research, education and health policy



Toward Environmental Justice

Approach taken by committee

- § Review literature, invite presentations
Existing and emerging tools for environmental health research
- § Visit communities of concern and listen
Chicago, New Orleans, Nogales, El Paso, Hanford

Committee Observed

- § Identifiable communities of concern that experience
Higher levels of exposure to environmental stressors
Less able to deal with that differential exposure
- § Link between exposure and adverse health outcomes not well described



Toward Environmental Justice

Committee Concluded

- § Concerns about environmental health and justice legitimate
- § Rigorous science base for policy decisions inadequate
- § All communities should live in environments supportive of health
 - Differential exposures to environmental stressors should be eradicated
- § Environmental justice research constraints
 - Based on solving specific problems, linked to specific community of concern
 - Results translated into public policy even when inconclusive
- § Public health, medical and policy communities need to understand what is known (and not known) about adverse health effects from differential exposure to environmental stressors



Toward Environmental Justice

Committee Recommendations

- § Public health research
 - Public health approach central to environmental health in disadvantaged communities
 - Apply new methods for data collection, analysis and community involvement
- § Education
 - Knowledge gaps among health care providers, policy makers and community members
- § Health policy
 - Acknowledged need for weight of evidence decision-making
 - Time, resources needed for additional information vs decisions with imperfect/incomplete information



Environmental Justice Twenty Five Years On: Meeting Health Challenges in the 21st Century

*Robert Bullard – Director of Environmental Justice
Resource Center at Clark Atlanta University*

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Toxic Wastes and Race - 2007

Race continues to be a significant independent predictor of commercial hazardous waste facility locations when socioeconomic and other non-racial factors are taken into account

People of color make up the majority (56%) of those living in neighborhoods within two miles of the nation's commercial hazardous waste facilities, nearly double the percentage in areas beyond two miles (30%)

People of color make up a much larger (over two-thirds) majority (69%) in neighborhoods with clustered facilities
People of color in 2007 are more concentrated in areas with commercial hazardous sites than in 1987

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Getting the Lead Out of Homes

The reduction in childhood lead poisoning is hailed as a major public health success story—with children's elevated blood lead levels, $10 \mu\text{g}/\text{dL}$, decreasing from 8.6 percent in 1988–1991 to 1.4 percent in 1999–2004, an 84% decline

By the end of Fiscal Year 2010, blood lead levels of $10 \mu\text{g}/\text{dL}$ or higher in the U.S. is expected to be eliminated as a public health problem

However, the lead threat has been especially problematic for poor children, children of color and children living in older housing in inner cities



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Environmental Justice, Progress (and the Lack There-of), and the Role of Research

*Howard Hu – Professor of Environmental Health Sciences
within University of Michigan's School of Medicine*

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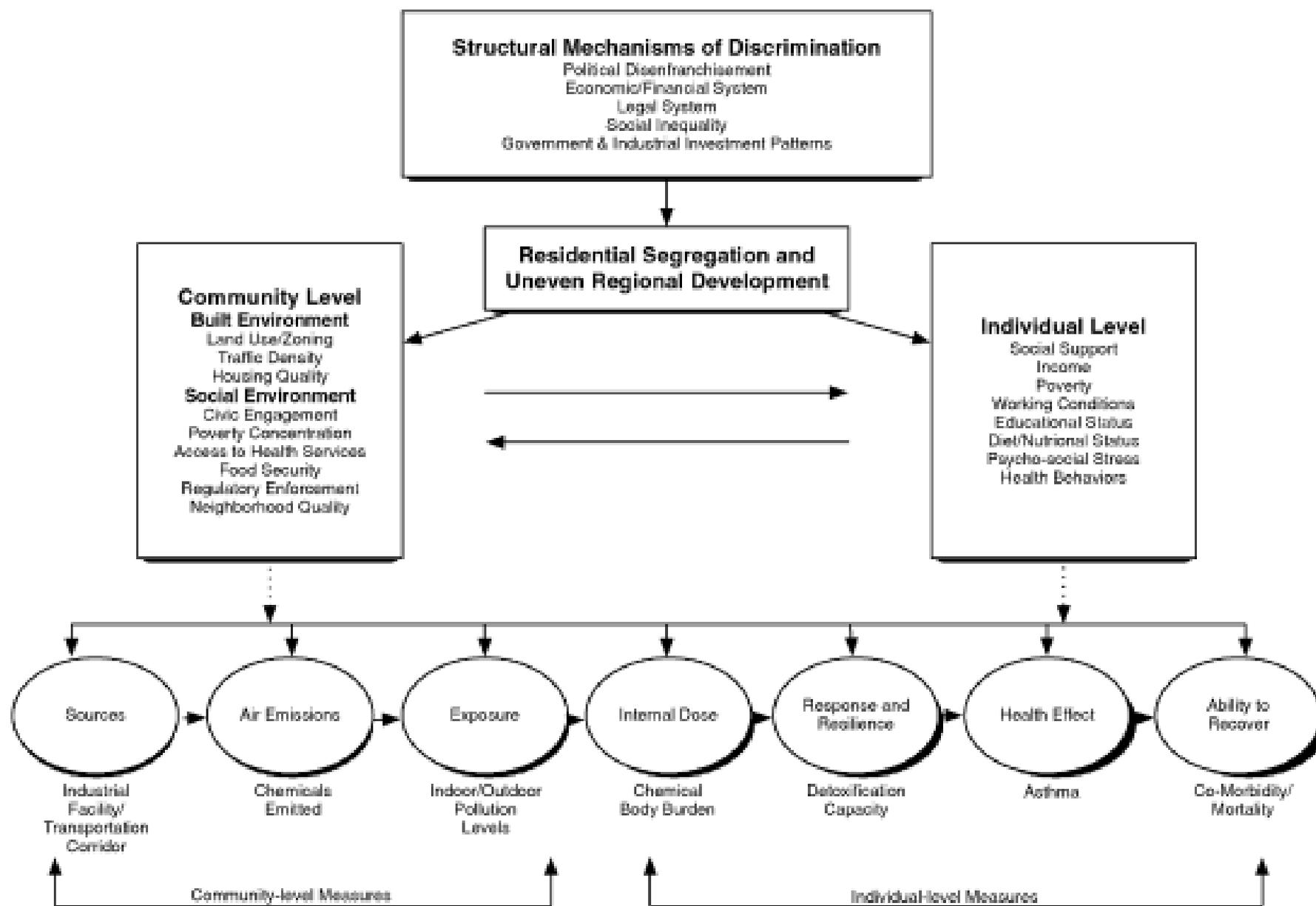
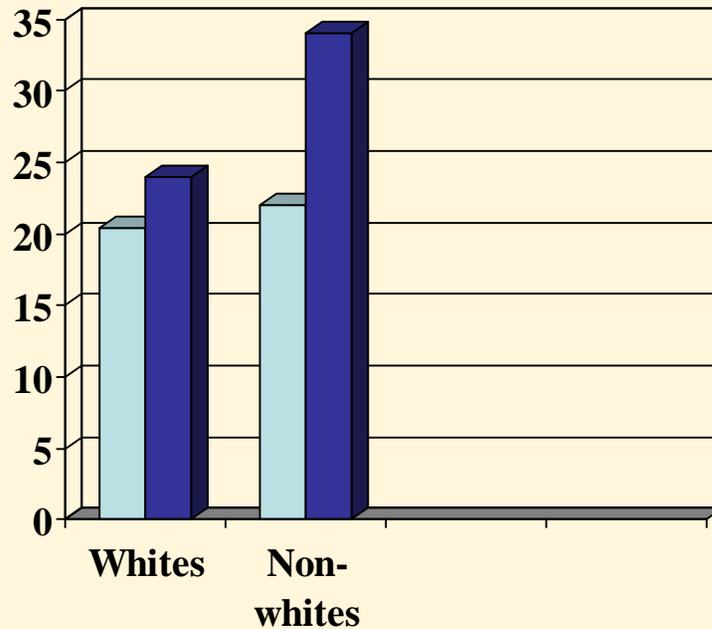


Fig. 1. Framework for understanding segregation and environmental health.

Occupational Determinants of Bone and Blood Lead Levels in Middle Aged and Elderly Men From the General Community: The Normative Aging Study

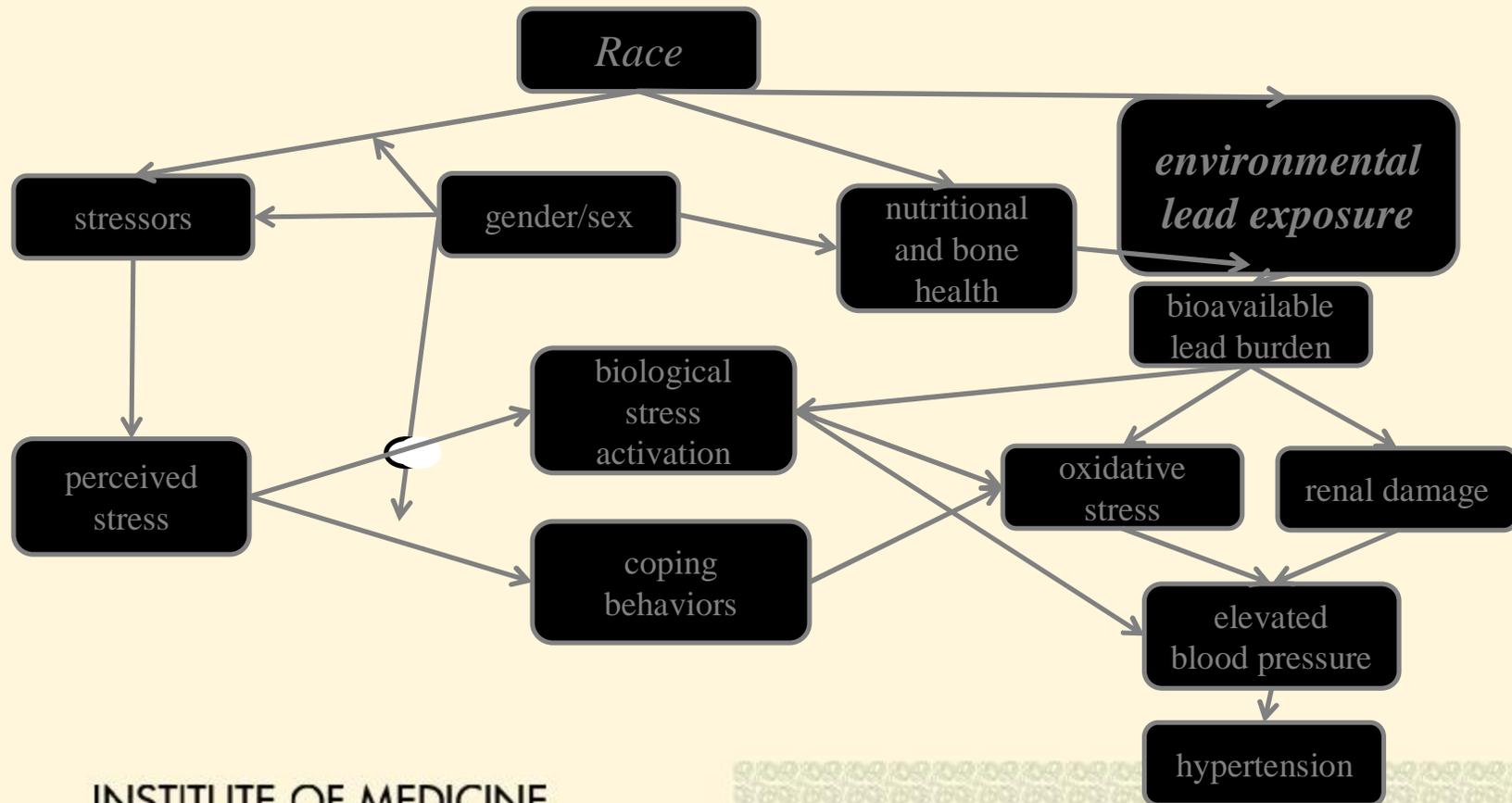
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Susan Korrick, MD, MPH,^{1,3} Jefferson H. Dickey, MD,⁴ David Sparrow, D.Sc.,^{3,5}
Antonio Aro, PhD, MPH,^{1,3} and Howard Hu, MD, MPH, ScD^{1,3}



- Lead burden from blue collar work much higher amongst non-whites...

White collar bone lead (mcg/g)
Blue collar bone lead (mcg/g)

Could higher historical lead exposures explain the higher rates of hypertension in African-Americans?



Update on Research: Health Impacts

Research on *actual health impacts* (v. exposures) lags behind for many reasons

- § Community-based research is hard
- § Development of better molecular/biological markers has been slow
- § Scientific community slow to move

Moreover, environmental health itself is being challenged to look *much farther afield & ahead*

- § The global health paradigm
- § The sustainability paradigm



Where The Roundtable is going from Here?

Focusing on two themes this year:

1. Environmental Health Economics
2. Tracking of Environmental health

Environmental Justice and Health disparities will be a sub-theme underneath these two areas.

