

Translating Research To Impact

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WE ACT For Environmental Justice

www.weact.org

EPA Environmental Health Workshop

Communicating to the Public

September 26, 2011

Environmental Health

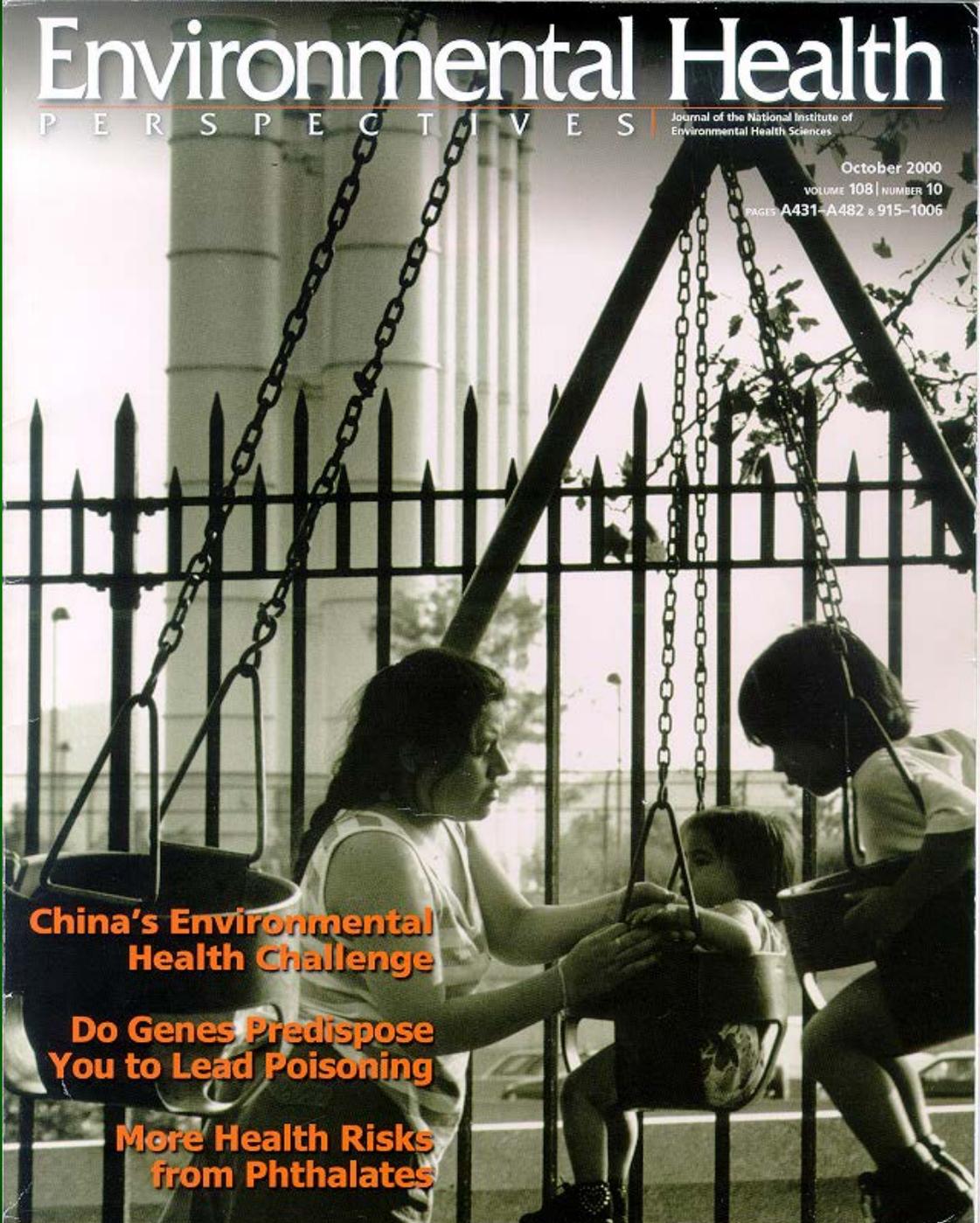
P E R S P E C T I V E S

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**China's Environmental
Health Challenge**

**Do Genes Predispose
You to Lead Poisoning**

**More Health Risks
from Phthalates**

Northern Manhattan Profile

- 7.4 sq. miles; over 620,000 residents; 86% of whom are African-American and Latino.
- Median household income is \$16,000.
- Excess mortality: asthma, cancer, heart disease; high rates of low birth weight, obesity, diabetes, learning disabilities.
- Multiple environmental exposures.
- Non-attainment area for Clean Air standards.
- Ranked #1 in cancer risk from air toxics by EPA

WE ACT, based in Harlem, builds healthy communities by assuring that people of color and low income participate meaningfully in the creation of fair and sound environmental health and protection policies and practices.

1. Clean Air Quality
2. Healthy Indoor Environments
3. Sustainable Land Use
4. Appropriate and Sanitary Waste Management
5. Reduced Access & Use of Toxic Products
6. Access to Good Food in Schools
7. Public Mobility: safe, clean, affordable
8. Creation and Use of Open and Green Space

North River Sewage Treatment Plant -- 1st Community Struggle



In 1988 the City built and opened the North River Sewage Treatment Plant with the capacity to treat 170 million gallons of raw sewage daily. The community demanded health studies to document their exposure. Reached out to NIEHS Center at Columbia. Two pilot studies began our 12-year partnership.

Focus on Science & Partnership

- Realized that evidence-based campaigns moved policymakers, empowered residents.
- Lack of scientific literacy, information, data, and context was serious void contributing to systemic exclusion of communities of color from decision-making.
- The partnership between WE ACT and the NIEHS Center at Columbia and the Columbia Children's Center for Environmental Health began in the mid 90s with two goals:
 - (1) studying the relationship between community-level environmental exposures and environmental health outcomes and
 - (2) translating those findings into policy changes that create equity in environmental decision making and environmental protection.

Building Partnership and Methods To Engage Academics and Residents

1st Level of Environmental Health Literacy: Raising Awareness

- 10-year partnership with Columbia's Children's Environmental Health and NIEHS P30 centers.
- Early years: town hall meetings, led local public outreach campaign through fact sheets, health fairs to raise awareness of 5 key actions parents can take in the home.
- Hosted conferences on asthma in 1996, lead poisoning, children's environmental health, and Ethical Issues of Genomic Research.
- WE ACT had a commitment to combining research with action to create change.
- Developed a process of steps and activities that shaped the content, course, pace and development of policy.

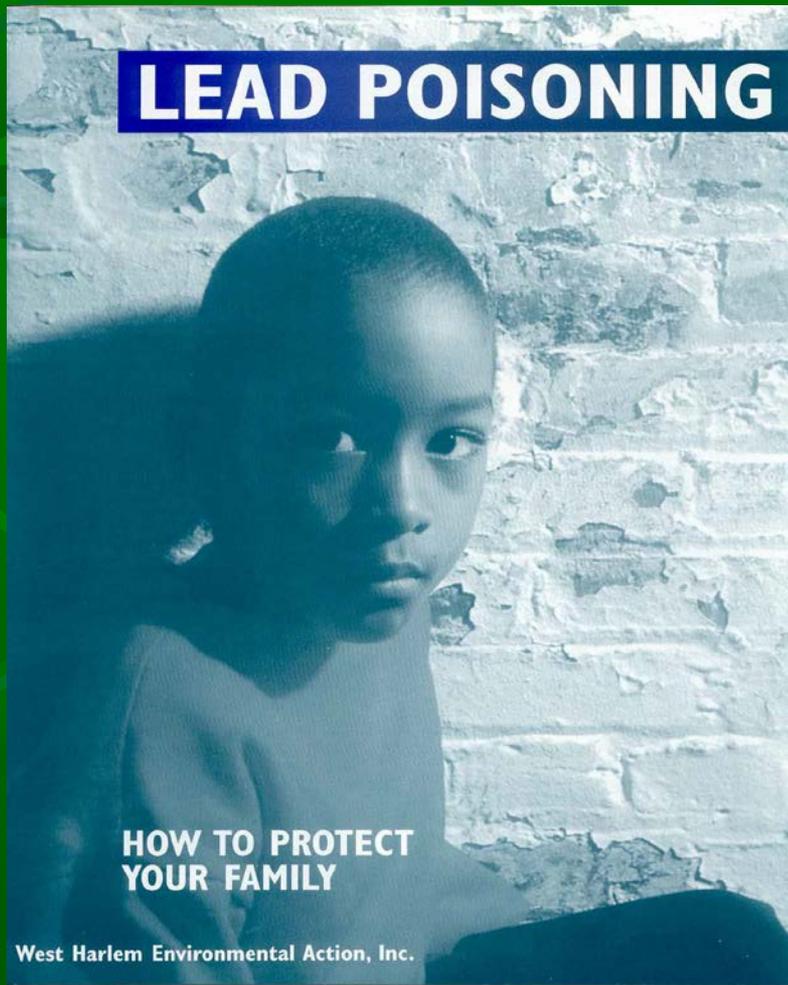
Center Findings on Fetal Growth & Neurobehavioral Development

- ⑩ **Prenatal exposure to PAH reduced birth weight and head circumference in African-American babies born to women who were more highly exposed to the air pollutants . May correlate with poorer cognitive functioning and school performance in childhood.**
- ⑩ **Children with high prenatal exposure to PAH had significantly lower test scores at age 3 on the Bayley test for cognitive development.**
- ⑩ **Prenatal exposure to PAH at levels encountered in NYC air can adversely affect child IQ scores at 5 years of age.**
- **Prenatal exposure to two household pesticides, chlorpyrifos and diazinon, which transfer easily from the mother to her fetus, reduced birth weight by an average of 6.6 ounces**
- **Children prenatally exposed to high levels of chlorpyrifos were significantly more likely than children exposed to low levels to experience delay in both psychomotor and cognitive development, and to show symptoms of attentional disorders. Though banned by EPA in residential use, still used in agriculture.**

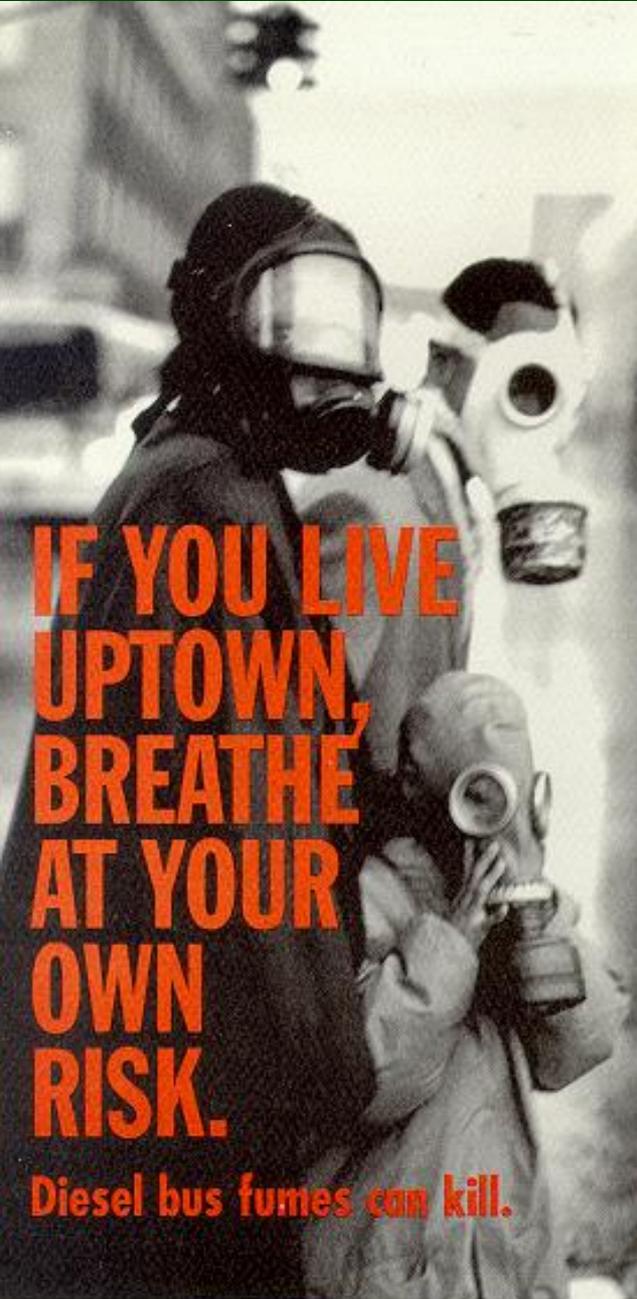
Environmental Health & Justice Leadership Training

- **Week 1: Introduction, Principles of Toxicology, Toxics/Treasures Tour.**
- **Week 2: Asthma & Environment, Air Pollution and Our Health.**
- **Week 3: Diesel Exhaust & Health, Housing & Health (pests, pesticides, IPM)**
- **Week 4: Housing & Health II, Mold & Indoor Air Quality, Lead Poisoning**

1st Community Conference On Lead Poisoning in NYC



- 90% of new cases are children of color living in 10 neighborhoods
- Led to 6-year coalition effort to achieve more protective lead legislation at the City Council level.
- Parent training and organizing was one essential key to success.



**IF YOU LIVE
UPTOWN,
BREATHE
AT YOUR
OWN
RISK.**

Diesel bus fumes can kill.

West Harlem Environmental ACTION
WE ACT for Environmental Justice.

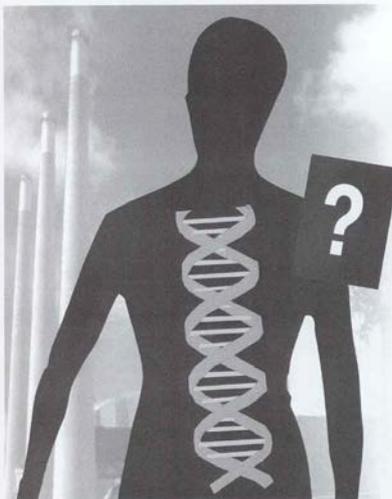
Studies on Diesel Exhaust Exposure Led To Campaign To Retrofit MTA Bus Fleet



As Member of NIEHS Advisory Council, Understood Impact of Genetics Research on Environmental Health Protection, Regulation

Conference Program and Resource Guide

West Harlem Environmental Action, Inc. *sponsors:*



**Human
Genetics,
Environment &
Communities
of Color:
Ethical and
Social
Implications**

February 4th, 2002
Alfred Lerner Hall
Columbia University
New York City

Co-sponsors

National Institute of Environmental Health Sciences (NIEHS)
NIEHS Center for Environmental Health in Northern Manhattan
at the Mailman School of Public Health, Columbia University
U.S. Environmental Protection Agency



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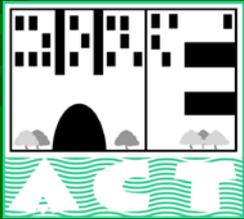
WE ACT FOR ENVIRONMENTAL JUSTICE

400 Attend National Genetics Conference to learn, assess challenges, benefits of genomics research; 2nd Day Reserved For 60 CBOs To Offer Recommendations



GENES AND JUSTICE

A Community Symposium on Health, Race &
Rights



WE ACT for Environmental
Justice



Libraries for the Future

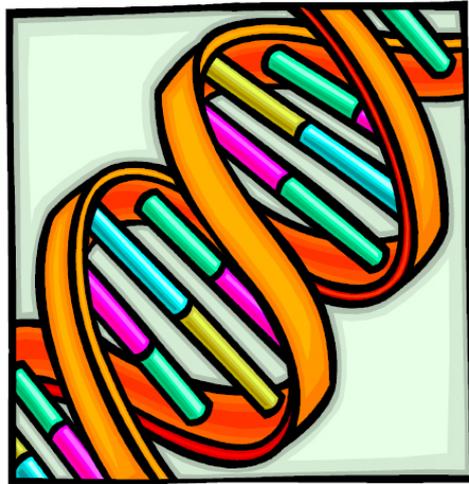
Special Thanks to Our Cosponsors and Supporters:

Genetics Equity Network, Mount Sinai Medical Center, the National Library of Medicine, and the NIEHS Center for Environmental Health in Northern Manhattan at the Mailman School of Public Health, The National Institute of Environmental Health Sciences (NIEHS), the National Center for Environmental Health (NCEH), the Mailman School of Public Health (MSPH), the Agency for Toxic Substances and Disease Registry (ATSDR) at the Centers for Disease Control and Prevention (CDC), the US Environmental Protection Agency (EPA), and the New York Academy of Medicine

Community Conversations

- **Project Goals:**
- Establish libraries as centers of information for genomic literacy and as venue for public affairs discussions
- Create replicable models
- Enhance public discussion and understanding thru focused outreach to communities of color
- Assess and build library capacity as centers of genomic literacy
- broaden access to information and provide equity in access to those typically out of the mainstream of science and health information that impacts their lives.

Genetics and YOU: A Community Conversation about your GENES



Facilitated by:
Dr. Doris Withers
Professor Biology and Education
Medgar Evers College, CUNY

Wednesday
May 28th, 2008
6:15pm

Location:
New York Public Library
George Bruce Branch
518 West 125th Street & Amsterdam
(212) 662-9727

By studying DNA, scientists have developed, and are currently developing new research, tests and treatment to help us improve our lives.

The presentation will help you:

- **Understand the relationship between your genetics and your chances of developing a disease**
- **Understand how different environments can affect your genes**
- **Understand whether or not genetics can be used to reduce health disparities**
- **Learn about the potential health benefits of genetic research**

Building Community Capacity

Environmental Health & Justice Leadership Training



Equipping Community Leaders With Skills & Knowledge

- Collective Problem Identification
- Collective Problem Solving
- Collective Visioning
- Collective Responsibility
- Collective Action

- **Leading them through the steps of (1) awareness (2) taking personal steps relevant to their homes (3) understanding and applying principles.**

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Six 3-Hour Sessions Weekly, 200 Graduates, 90% Retention

- **Week 5: Cancer & the Environment, Solid Waste Management.**
- **Week 6: Putting It All Together—**
Presentation of all our visions of healthy communities and discussion on EJ.
- **Six- Hour Saturday Session: Community Organizing, Media Training, Environmental Planning.**

Training Based On Columbia Environmental Science Course

- Uses popular education principles.
- Introduces basics of toxicology, risk assessment, environmental fate/transport.
- Provides complex information accessible to range of education, literacy, ages.
- Resource binder with 70 articles, fact sheets, maps, booklets, talking points provided to participants.

Personal Transformation Transformed Communities

- EHJLT encouraged leaders to explore the various environments in which they lived.
- Challenged leaders to understand their roles and responsibilities in creating the neighborhoods they've envisioned.
- Visualized the type of neighborhoods they wanted for themselves and future generations.
- Charted a course of action to achieve their vision

- 1. Problem Definition / Identification** Community-identified issues of air pollution, pesticides, asthma
- 2. Setting An Agenda and Creating Awareness:** highlighting a health issue that government officials are paying attention to like environment and asthma.
Educating community residents and policymakers through public awareness campaigns, workshops and testimonies.
- 3. Constructing the Policy Alternatives:** Identify targets, allies and opponents;
- 4. Deciding the Policy to Pursue:**
Goal that is specific, winnable , and easy to articulate;
- 5. Policy Advocacy:** Setting activities to achieve the goal, and raising the visibility of the partnership, its outcomes and products.

Columbia University Expansion Into West Harlem



GROUND FLOOR PLAN - FULL BUILD
COLUMBIA UNIVERSITY in the City of New York - Manhattanville in West Harlem

1/32"=1'-0" - December 2nd 2004
Renzo Piano Building Workshop and Seidman, Owens & Neri

Columbia Expansion Impacts: West Harlem's Environmental Needs

- Use best available technology equipment and best available pollution control technology as well as “clean,” alternative fuels and energy
- Use best available technology and best practices on all aspects of construction
- Ensure that any relocation of the MTA Manhattanville Bus Depot will be 1) built to LEEDS Gold standard including pollution controls,
- Implement Zero-Waste Policy including salvaging of building material, recycling, and composting as well as work to prevent the reopening of the 135th Street Marine Transfer Station
- Ensure the solid waste and disposal as well as stormwater runoff needs of the expansion-associated population will be met so that additional pollution sources will not be brought to bear on the West Harlem Community
- ensure the public health and safety against biosafety risks in case of any containment breach that may result from the

Training Residents To Participate In Scoping Sessions

- Pledge to conduct biological research at no higher than **Biosafety Level 2**
- **Promote easy public access to the waterfront park**
- Ensure availability of **high-quality housing that is affordable** to our low-income community members whose average annual family income hovers at little more than **\$23,000**

Provide **high-technology and biotechnology skills training** as well as **job and economic opportunities** for residents and workers who will be displaced by the expansion