

Table of Contents

Welcome and Purpose of Meeting.....	3
Agenda	5
Sunday, December 9.....	5
Monday, December 10.....	5
Tuesday, December 11	7
Wednesday, December 12.....	9
Project Summaries	11
Project Descriptions.....	13
Jornaleros Unidos Con el Pueblo (Day Laborers United with the Community)	15
Linking Breast Cancer Advocacy and Environmental Justice	17
Ethics: A Bridge for Communities and Scientists	21
Partnership to Reduce Asthma and Obesity in Latino Schools.....	24
Strengthening Vulnerable Communities in Worcester Built Environment.....	29
Healthy Food, Healthy Schools and Healthy Communities	33
Assessing and Controlling Occupational Risks Among Immigrants in Somerville, Massachusetts	37
Environmental Justice on Cheyenne River.....	41
New York Restaurant Worker Health and Safety Project	44
Community Health Intervention with Yakima Agricultural Workers.....	47
Healthy Homes and Community for High Point Families.....	50
Community Collaborations for Farmworker Health and Safety.....	53
Environmental Health and Justice in Norton Sound, Alaska.....	56
Building Food Justice in East New York.....	62
JUSTA: Justice and Health for Poultry Workers	65
Alton Park/Piney Woods Environmental Health and Justice	71
Promoting Occupational Health Among Indigenous Farmworkers in Oregon	75
Asian Girls for Environmental Health.....	79
Work Environment Justice Partnership for Brazilian Immigrants in Massachusetts	83
South Bronx Environmental Justice Partnership.....	88
Communities Organized against Asthma and Lead (COAL)	94
Land Use, Environmental Justice, and Children's Health	99
Community Health and Environmental Reawakening	104
Conference Participants.....	113
Notes.....	123

Welcome and Purpose of Meeting

Welcome – English

Yá'át'ééh– Navajo

Quyaakamken – Yupik

Tanyan yahipi– Lakota

Bem vindo – Portuguese

Hoan nghênh!– Vietnamese

Bienvenidos – Spanish

Benvindus – Cape Verdean Kriolu

Welcome to Boston, MA for the annual Environmental Justice grantee meeting. Once again, we welcome the participation of colleagues from the Ethical, Legal and Social Implications program. This year we come to the meeting with even more outcomes to report in our plenary sessions, workshops and posters. During the meeting we will learn more about these accomplishments, look toward future possibilities, and consider how we may build upon the successes over the past year.

The agenda created by the planning committee is very exciting. It offers meeting participants time to listen, dialogue and plan. Monday begins with two tour options to see and learn more about a variety of EJ work being done in the greater Boston area. On Tuesday, we will hear from several speakers. As you may be aware, there has been change at NIEHS since our 2006 meeting. This year, Dr. Samuel Wilson, Acting Director, NIEHS, will speak with meeting participants about the latest developments at the institute. Our first panel will describe larger trends in environmental justice and community-based participatory research. Hopefully, this panel will provide participants with a sense of how their projects fit into the bigger picture of EJ and CBPR. The second panel will highlight different ways in which researchers and community members work together to collect exposure data and build capacity. The third panel will discuss how the development of cooperatives has generated positive outcomes for addressing occupational and environmental health issues. In the fourth and final panel, grantees of projects currently in a period of “No Cost Extension” will share with meeting participants outcomes of their projects as well as pearls of wisdom on how they have sustained and leveraged the successes of their projects.

The NIEHS has had a long history of facilitating, nurturing and supporting partnerships between and among community organizations, researchers, and health care providers with the long-term objectives of improving environmental public health and affecting health policy change. Currently, the institute is seeking input from the extramural community on how to build upon its past successes. Therefore, during lunch on Tuesday participants will be divided into small groups to discuss NIEHS' recently released Request for Information (RFI) on the Partnerships for Environmental Public Health (PEPH) Program. Discussion outcomes and questions will be brought back to the larger group on Wednesday afternoon.

Wednesday will be dedicated to smaller group workshops to foster increased interaction among participants with a shared interest in a particular topic. There will be three workshops, each with three concurrent sessions. We will end the meeting by reviewing outcomes of the small group discussions on the RFI and by planning for the future. We have set aside a full hour for meeting participants to identify tangible action steps before we disperse for another year.

Grantee meetings are the perfect time to interact with your colleagues with a shared interest. Hopefully, you will find the time during the meeting to catch-up with them and perhaps plant the seeds for future collaborations.

Special thanks to the planning committee members: Julia Brody, Sarah Dunagan, Linda Markarian, Phil Brown, David Gute, Marian Feinberg, Mary Rogge, Laurel Turbin, Guillermo Gomez, Eduardo Siqueira, and Timothy Downs. We also appreciate the efforts of Alex Pirie and Peggy Middaugh who helped plan the Environmental Tours and Anne Bonner and Anna Batty of Silent Spring Institute who helped with the conference logistics.

Agenda

Sunday, December 9, 2007

Boston Park Plaza Hotel

3:00 p.m. – 7:00 p.m. Registration and packet pick-up Exeter Room Foyer, 2nd Floor Mezzanine

Monday, December 10, 2007

Educational Tour

7:00 a.m. – 12:00 p.m. Registration and packet pick-up Exeter Room Foyer, 2nd Floor Mezzanine

7:00 a.m. Breakfast Berkeley/Clarendon Room

8:30 a.m. Load buses at hotel and depart for tours Valet Entrance on Columbus Ave.

Tour #1: Worcester and Dudley Square

Worcester, Massachusetts was the heartland of the American Industrial Revolution in the 19th century, and is the third largest city in New England. This tour will highlight three areas:

- a university-community partnership for urban revitalization and high school education
- demonstrations of both outdoor and indoor environmental testing that actively involves local residents
- visits to green buildings, from houses to laboratories

We will visit the new Boys and Girls Club in the Main South neighborhood recently built on an old brownfield, an urban garden run by youth, a private home, and Clark University's green buildings. Lunch will comprise local food that reflects the ethnic diversity of the city, and be held in the Faculty Dining Room at Clark. During lunch, examples of EJ/CBPR research will be shared, including youth presenting results of their air quality testing, results of an asthma survey in local schools, and a briefing by the Worcester Lead Action Collaborative, recent recipient of a \$3M grant that targets child lead poisoning among vulnerable groups. The tour will be via van and some short walks.

1:15 p.m. Depart for Dudley Square

Dudley Square is a commercial center and transportation hub for Roxbury, Massachusetts, a community of color of 60,000. ACE (alternatives for community and environment) will guide participants on a walking tour of Dudley Square that will highlight a range of environmental injustice issues and the community responses and victories. The sites we will visit tell the stories of the struggles against transit inequality, air pollution (diesel), brownfields, violence, gentrification/displacement and solid waste facilities. We will also watch a film about ACE's history and discuss environmental justice issues in Roxbury.

4:45 p.m. Depart for restaurant

Tour #2: Somerville and Silent Spring Institute

Somerville, Massachusetts is compact in scale with only 4.1 square miles of land area but a very diverse current population of 80,000 with over 29% of the city's residents born in a foreign country, and with 14.5% entering the U.S. between 1990 and March 2000.

This tour will explore various dimensions of diversity including streetscapes, housing stock, parks and socio-economic differences. The intimate scale of the city will provide tour participants the ability to comprehend the richness of these differences via a carefully planned and narrated tour via bus and walking.

The tour will feature visits with community partners responsible for the prominent programmatic activities supported by the grant. These activities include:

- a demonstration of the environmentally friendly cleaning products and philosophy behind the launching of the *Vida Verde* co-operative of women house cleaners by the Brazilian Women's Group

- an occupational health and safety “walk through” of Flagraphics Inc., a Somerville firm that is a major manufacturer and installer of architectural interior/exterior textile graphics. This field visit will demonstrate how occupational health and safety content has been incorporated into the training of a cohort of Teen Educators as recruited by two Community Partners, the Community Action Agency of Somerville and the Haitian Coalition. The visit will also provide an opportunity for tour participants to learn from the founder of Flagraphics how immigrant workers have been introduced into the labor force.
- a short walking tour (weather permitting) of the Union Square neighborhood which will allow participants to literally hear and feel the hum and the rhythm of place. This portion of the day will feature a discussion on the broader environmental justice history of the neighborhood.

This tour will conclude with a lunchtime conversation which will explore the interaction between the Community Partners and the academic partner of this grant, Somerville-based Tufts University, allowing participants to better understand the relationship between academic and community partners.

2:15 p.m. Depart for Silent Spring Institute

Silent Spring Institute is a partnership of scientists and activists dedicated to identifying links between the environment and women’s health, especially breast cancer. The institute was established in 1994 by the Massachusetts Breast Cancer Coalition because of concern about elevated incidence of breast cancer in the state. Silent Spring Institute is collaborating with Communities for a Better Environment and Brown University in a study that links breast cancer advocacy and environmental justice. The project is assessing household exposure to endocrine disrupting compounds (EDCs) in communities in Cape Cod, Massachusetts, and Richmond, California; and developing communications tools to report results to study participants and communities.

In this tour, you will visit Silent Spring Institute’s office in Newton, Massachusetts, and meet the staff and some of our founders. Our tour will include:

- talks by two of Silent Spring Institute’s founders
- excerpts from the documentary film *No Family History*
- a demonstration of household exposure study methods
- a virtual tour of our project site in Richmond, CA

4:45 p.m. Depart for restaurant

5:30 – 8:30 p.m. **Dinner and Performances** **Pho Republique restaurant**

Wanna Williams-Wright – “Alive to Testify”

1415 Washington Street

Wanna shares the belief of the environmental justice community that many of the companies that develop drugs to treat disease also develop the chemicals that are causes of disease; and the mainstream health care system relies on and promotes these very drugs. Wanna’s performance explores the dilemma faced by an African American community activist committed to environmental justice principles and her need to gain her community’s trust for the mainstream health care system they need to survive breast cancer.

Ponto de Partida-USA

The group was created to inform and educate Brazilian immigrants in Massachusetts through the art of performing. As an initiative of the Projeto Parceria or COBWEB, in English, the group began its works with a short film called “My Dream, our Reality” which portrayed fatalities and accidents in the work place. Subsequently, the group took this initiative even further by expanding borders, incorporating more members and becoming a multimedia group which allowed the group to walk with its own two legs, and always keeping the essence of being a resource of information for the Brazilian community in the foreigner, bringing up subjects which generate revision of values, change of styles and mainly to enrich and to guide the Brazilians. Actors in the performance: Robson Lemos and Jesse Branth

8:45 p.m. Bus or walk back to the hotel

Tuesday, December 11, 2007**Boston Park Plaza**

7:30 a.m.	Breakfast	Georgian Foyer
8:00 a.m.	Welcome and Introductions Julia Brody, Silent Spring Institute Liam O'Fallon, National Institute of Environmental Health Sciences Sherry Baron, National Institute of Occupational Health and Safety	Georgian Room
8:15 a.m.	Blessing Rev. William Sinkford, President, Unitarian Universalist Association	Georgian Room
8:30 a.m.	NIEHS Update Samuel Wilson, M.D., Acting Director, National Institute of Environmental Health Sciences	Georgian Room
9:00 a.m.	Larger Trends in Community-Based Participatory Research and Environmental Justice This opening session will examine where CBPR and EJ fit in context of emerging programs and trends. "NIH Confidential: CBPR across the Institutes" – William Elwood, Ph.D., Chairperson, Trans-NIH Special Interest Group on CBPR "A Community Based Participatory Research Project – A Community Perspective/Lessons Learned" – Idida Perez, Chairperson, National Organizers Alliance "A Winning Partnership: A Community Response to Government in Action after Katrina" – Beverly Wright, Ph.D., Director, Deep South Center for Environmental Justice	Georgian Room
10:30 a.m.	Break	
10:45 a.m.	Exposure Research and Community Capacity Building Moderator: Carla Perez, Communities for a Better Environment This session will highlight the work being done by grantees to build the capacity of research partners. "Household Exposure Monitoring in Massachusetts and California Communities" – Carla Perez (Communities for a Better Environment), Ami Zota (Silent Spring Institute), and Rebecca Gasior Altman (Brown University) "Building a Neighborhood Environmental College" – Kimberly Davis, University Of Tennessee, John Bruce, Southside/Dodson Avenue Community Health Centers "Environmental Health Leadership Training" – Peggy Shepard, WE ACT	Georgian Room
12:15 p.m.	Lunch & RFI Discussions During lunch participants will break into smaller groups to talk about the recently released Request for Information (RFI) on the Partnerships for Environmental Public Health program that the NIEHS is beginning to develop. Discussions begin Tuesday and continue on Wednesday with a large group discussion.	Arlington Room

-
- 1:30 – 5:30 p.m. Poster set-up Terrace Room
- 1:45 p.m. **Using Cooperatives to Improve Public Health** Georgian Room
 Moderator: David Gute, Tufts University
 This session will discuss the ways in which cooperatives are being developed within projects to increase awareness of environmental health, promote public health, and empower community members.
 Assessing and Controlling Occupational Risks Among Immigrants in Somerville, MA –
 Heloisa Galvao and Monica Chianelli, Brazilian Women’s Group
 New York Restaurant Worker Health & Safety Project – Sekou Siby, Restaurant
 Opportunities Center of New York
 Using Cooperatives to Improve Public Health: Examples from the East New York Food Co-
 op – Kimberly Morland (Mount Sinai School of Medicine) and Salima Jones-Daley (East
 New York Food Co-op)
- 3:15 p.m. Break
- 3:30 p.m. **Where the Sidewalk Ends... No Cost Extension Projects** Georgian Room
 Moderator: Liam O’Fallon, National Institute of Environmental Health Sciences
 In this session, grantees who have completed four years of funding as part of the EJ Program will present project highlights and images of the life after.
 Work Environment Justice Partnership for Brazilian Immigrants in Massachusetts –
 Eduardo Siqueira, University of Massachusetts Lowell
 Communities Organized against Asthma and Lead (COAL) – Jonathan B. Ward Jr.,
 University of Texas Medical Branch
 High Point Healthy Homes and Community – Denise Tung Sharify, Neighborhood House
 Dorchester Occupational Health Initiative – Lenore S. Azaroff, University of Massachusetts
 Lowell
- 5:00 p.m. **Report-back of Real-Time Particulate Monitoring from Monday’s Tours** Georgian Room
 Timothy Downs, Clark University
 Find out what we were breathing in at different points along the route.
- 5:30 p.m. **Poster Reception** Terrace Room
 Franklin Dalember (Haitian Coalition) and Ismael Vasquez (Community Action Agency of
 Somerville) will introduce local teen educators at the beginning of the reception.

Wednesday, December 12, 2007**Boston Park Plaza**

7:30 a.m.	Breakfast	Georgian Foyer
8:15 a.m.	Health Disparities and Environmental Justice David Williams, Ph.D., Harvard University	
8:30 a.m.	Concurrent Workshops I	
	1. <u>Health Disparities and Environmental Justice</u> Moderator: Marian Feinberg, For a Better Bronx Come discuss the case for health disparities as a reflection of environmental racism and injustice and how we can use advocacy, education and policy strategies to influence the public health world to integrate environmental justice in its models.	Georgian Room
	2. <u>Dialogue Sessions on ELSI</u> Moderator: Laurel Turbin, WE ACT We will conduct two audio-taped dialogue sessions that focus on the design and conceptual framework for community review of environmental health research, in particular the goals and limitations of community based participatory research review. The data gathered from the dialogues will inform our community review model. The dialogues will last approximately 1-hour excluding the informed consent process which will require an additional 10-15 minutes. There can be no less than 6 and no more than 8 discussants per dialogue.	Clarendon Room
	3. <u>Immigrant Worker Health and Safety</u> Moderator: Eduardo Siqueira, University of Massachusetts Lowell This workshop will discuss the recent experiences of the NIOSH/NIEHS funded EJ projects that focus on immigrant workers' health and safety.	Berkeley Room
10:00 a.m.	Break and change rooms	
10:30 a.m.	Concurrent Workshops II	
	1. <u>CBPR Approaches for Environmental Testing and Sampling</u> Moderator: Ruthann Rudel, Silent Spring Institute Environmental testing can provide valuable information on local conditions in communities with a particular health or environmental exposure concern. Participants in this workshop will discuss approaches for project design, implementation, and data analysis in a CBPR context.	Georgian Room
	2. <u>Dialogue Sessions on ELSI</u> Moderator : Laurel Turbin, WE ACT We will conduct two audio-taped dialogue sessions that focus on the design and conceptual framework for community review of environmental health research, in particular the goals and limitations of community based participatory research review. The data gathered from the dialogues will inform our community review model. The dialogues will last approximately 1-hour excluding the informed consent process which will require an additional 10-15 minutes. There can be no less than 6 and no more than 8 discussants per dialogue.	Clarendon Room
	3. <u>Grants Management Nuts and Bolts</u> Moderator: Michael Loewe, NIEHS The session will provide an overview of the NIH Implementation of Multiple Principal Investigators on Grant Applications. The session will also cover prior approval/administrative requirements for grantees with special emphasis placed on requirements that are specific to the final budget period of a grant award.	Berkeley Room
12:00 p.m.	Lunch	Arlington Room

- 1:00 p.m. **Concurrent Workshops III**
1. Use of Video to Increase Awareness of Environmental Health and EJ Georgian Room
 Moderator: Carolyn Crump, University Of North Carolina
 This session will describe the use of interactive multi-media materials (e.g., video, digital story telling, reader's theater) to raise awareness of environmental health and justice. Specific discussion triggers can prompt critical dialogue to identify potential solutions about the health effects of exposure to toxic substances and unfair working conditions. Stakeholder perspectives are important to understand roles, challenges, and what collaborations are needed to implement healthy and just solutions.
 - a. Cheryl Osimo, Silent Spring Institute
 - b. Alvaro Morales, San Francisco Dept. of Public Health
 - c. Carolyn Crump, University Of North Carolina
 2. Mobilizing youth participation in EJ/CBPR work Clarendon Room
 Moderator: David Gute, Tufts University
 Youth are primary stakeholders in how society understands and responds to environmental health and environmental justice challenges. Their knowledge, energy, power, and creativity needs to be more widely mobilized. How can this be done? How can we create dialogue spaces where we listen to youth voices? This workshop shares perspectives and experiences on these questions.
 - a. Ismael Vasquez, Community Action Agency Of Somerville
 - b. Marcy Godlstein-Gelb., MassCOSH
 3. Grants Management Nuts and Bolts Berkeley Room
 Moderator: Michael Loewe, NIEHS
 The session will provide an overview of the NIH Implementation of Multiple Principal Investigators on Grant Applications. The session will also cover prior approval/administrative requirements for grantees with special emphasis placed on requirements that are specific to the final budget period of a grant award.
- 2:30 p.m. **Partnerships for Environmental Public Health RFI Discussion** Georgian Room
 Moderators: Rachel Morello-Frosch (University of California Berkeley) and Julia Brody (Silent Spring Institute)
 We will gather ideas from Tuesday's lunch time discussion groups and develop action plans to contribute EJ perspectives.
- 3:00 p.m. **Actions for 2008** Georgian Room
 Moderator: Liam O'Fallon, NIEHS
 We should walk away from this meeting with a sense of action. This 60 minute session includes a recap of the meeting and will explore a variety of action steps (immediate and longer term) for the projects. What mechanism and tools are needed to promote continued dialogue over the next year? How can groups that share common regions or topics continue interacting to have a wider impact?
- 4:00 p.m. **Wrap-up and Adjourn** Georgian Room
 Julia Brody, Silent Spring Institute

Project Summaries

Project

Principal Investigator

Jornaleros Unidos Con el Pueblo (Day Laborers United with the Community).....	Rajiv Bhatia
Linking Breast Cancer Advocacy and Environmental Justice.....	Julia Brody
Ethics: A Bridge for Communities and Scientists.....	Ann Cook
Partnership to Reduce Asthma and Obesity in Latino Schools	Rochelle S. Davis
Strengthening Vulnerable Communities in Worcester Built Environment	Timothy J. Downs
Healthy Food, Healthy Schools and Healthy Communities	Robert Gottlieb
Assessing and Controlling Occupational Risks Among Immigrants in Somerville, Massachusetts.....	David M. Gute
Environmental Justice on Cheyenne River.....	Jeffrey A. Henderson
New York Restaurant Worker Health and Safety Project.....	Saru Jayaraman
Community Health Intervention with Yakima Agricultural Workers	Matthew Keifer
Healthy Homes and Community for High Point Families	James Krieger
Community Collaborations for Farmworker Health and Safety	John J. May
Environmental Health and Justice in Norton Sound, Alaska	Pamela K. Miller
Building Food Justice in East New York.....	Kimberly Beth Morland
JUSTA: Justice and Health for Poultry Workers.....	Sara A. Quandt
Alton Park/Piney Woods Environmental Health and Justice.....	Mary E. Rogge
Promoting Occupational Health Among Indigenous Farmworkers in Oregon.....	Nargess Shadbeh
Asian Girls for Environmental Health.....	Eveline Shen
Work Environment Justice Partnership for Brazilian Immigrants in Massachusetts.....	C. Eduardo Siqueira
South Bronx Environmental Justice Partnership	Alvin (Hal) Strelnick
Communities Organized Against Asthma and Lead (COAL).....	Jonathan B. Ward, Jr.
Land Use, Environmental Justice, and Children's Health.....	Joy Williams
Community Health and Environmental Reawakening	Steve Wing

Project Descriptions

Jornaleros Unidos Con el Pueblo (Day Laborers United with the Community)

Grant Number: I R25 OH008146-01
Funded By: NIEHS

Principal Investigator

Rajiv Bhatia, San Francisco Department of Public Health

Collaborators

Anamaria Loya, JD
Executive Director
La Raza Centro Legal

Project Aims

The overall aim of this project is to improve working conditions for day laborers through strategies that reflect the knowledge, needs, and participation of day laborers

Project Summary

Jornaleros Unidos con el Pueblo: A partnership to improve working conditions for day laborers

Jornaleros Unidos con el Pueblo (Unidos) is a partnership between the San Francisco Department of Health, Program on Health Equity and Sustainability, immigrant day laborers, and community service organizations. Its goal is to involve the day laborers and their community in improving their working conditions. The partnership has identified avoidable workplace hazards for both male day laborers and female domestic workers in the construction, house cleaning, and landscape industries. Unidos actions to address workplace hazards include leadership development for laborers, health and safety trainings, and the provision of personal safety equipment. In addition, we recognize that preventing hazards means acknowledging and addressing the labor's economic and social needs as well as their invisibility to government regulators. Therefore, interventions such as a vocational training curriculum that integrates job skills and safety knowledge have been developed to address some of these up-stream causes of unsafe and unhealthy working conditions.

Public Health Impacts

An evaluation of the Safe and Dignified Cleaning training program indicated that domestic workers participating in this Unidos project have gained leadership skills and self confidence, and have improved their health and well-being after implementing ergonomic changes and using less-toxic cleaning products. As a result of the vocational training program, several day laborers have become more integrated. Several day laborers received an identification card for their certification as California Department of Health Services Lead-Certified Worker, which is viewed by the day laborers as a considerable achievement. Several day laborers have obtained a regular job with contractors to do lead hazard remediation work. In addition, day laborers have been trained in painting, using lead-safe practices. The Unidos project has served to connect several different types of agencies with different missions to come together to work on improving the working conditions of day laborers. For example, a city housing agency and a business development agency, through their participation in Unidos, have come together to develop a lead-abatement cooperative. Once developed, this business will serve as a model to develop other types of business cooperatives within Latino immigrant communities in San Francisco. Indirectly through Unidos projects, some medical access needs and barriers of day laborers were identified. Unidos was able to pass this information onto the community health services providers of the city to further investigate and develop medical program needs for this hard-to reach population.

Policy Impacts

California Worker's Compensation laws exclude many of California's low wage immigrant workers, including many day laborers and domestic workers, from receiving benefits for workplace injuries and illnesses. The Unidos project is supporter of the inclusion of all people not currently covered by identifying gaps and by advocating for workers compensation policy improvement at the local and federal level. Unidos is in the process of drafting a local ordinance that would provide a system to cover workers compensation expenses for day laborers and domestic workers. The day laborer-led legal clinic, an adjunct to the Worker's United Course sponsored by Unidos, has helped immigrant workers recuperate over \$100,000 in unpaid wages. Furthermore, the staff of this legal clinic has educated advocates and attorneys throughout the Bay Area about the gaps in worker's compensation legislation relevant to day laborers and domestic workers. The staff is facilitating "Know Your Rights" training in other community-based organizations that serve immigrant workers. Another gap in the existing system of protecting employees is the inaccessibility of the state Cal-OSHA to workers. Due to resource limitations, Cal-OSHA does not have Spanish-speaking inspectors nor are there an adequate number of inspectors to cover the State. Unidos is attempting to fill this gap by providing an occupational health and safety liaison with whom day laborers can consult and ask for assistance in making a complaint to Cal-OSHA. Furthermore, this liaison's roles include increasing awareness of occupational injuries and illnesses and providing tools and support needed to prevent injuries and to exercise their labor rights.

Publications

Report on Day Laborers' Access to Medical Services, July 2007 www.sfdph.org/phes/

Format:

Date: 2007

Report on collaboration between Unidos and Mayor's Office of Housing

Format:

Date: 2006-2007

Contact Information

PI

Rajiv Bhatia MD, MPH
Director of Occupational and Environmental Health Section
San Francisco Department of Public Health
Healthcare Provider
1390 Market Street, Suite 822
San Francisco, California 94102

Collaborator

Anamaria Loya, JD
La Raza Centro Legal
474 Market St, Suite 295
San Francisco, California 94103

Linking Breast Cancer Advocacy and Environmental Justice

Grant Number: 5 R25 ES013258-02

Funded By: NIEHS

Principal Investigator

Julia Brody, Silent Spring Institute

Collaborators

Phil Brown
Brown University

Rachel Morello-Frosch
University of California, Berkeley

Carla Perez
Communities for a Better Environment

Project Aims

The project's specific aims are: to link breast cancer advocacy and environmental justice in two communities that differ in racial/ethnic and economic character, to better understand exposure to endocrine disrupting compounds (EDCs) in indoor environments and the relationships between indoor measurements and outdoor sources, to report environmental monitoring data to individuals and communities in a way that supports empowerment, and to develop guidance for report-back by others.

Project Summary

Breast Cancer and Environmental Justice – Household Exposure Study

Breast cancer advocacy and environmental justice communities are natural allies that are linked through a collaboration of Silent Spring Institute, Communities for a Better Environment, and Brown University that is investigating the role of household pollutants in health. The project is assessing household exposure to EDCs and developing communications tools for reporting results to affected individuals and communities.

EDCs from sources such as consumer products, industrial processes, and air and water pollution are a concern for breast cancer activists because many EDCs mimic estrogen, a known risk factor for breast cancer. EDCs are emerging, too, as an environmental justice concern because of disproportionate breast cancer mortality among African-American women. EDCs may also affect asthma, fetal development, premature puberty, learning disabilities, and other aspects of reproductive and neurological health.

Indoor pollutants originate from both indoor and outdoor sources, and exposure studies can help identify the major sources. Samples of indoor air and dust were collected in three locations—Cape Cod, Massachusetts, which has disproportionately high breast cancer risk; Richmond, California, which is largely home to people of color living near an oil refinery and other industrial sites; and Bolinas, California, a rural coastal community north of Richmond. Outdoor air was collected next to the Richmond and Bolinas homes. Chemical analysis of the samples is now complete, and results for individual homes were reported to study participants. Preliminary comparisons of indoor and outdoor air were presented at a community forum in Richmond. Further results will be shared through community meetings, news media, and other channels.

In establishing a process for communicating study results to participants, the partners are developing methods maximize understanding of the scientific data and its limitations. The protocol will address the ethical issues of ensuring community and individual autonomy, right-to-know, and ultimately the right to act on scientific information by engaging more effectively in environmental policy-making and regulation to reduce exposures.

The project team is led by a community-based environmental breast cancer research and outreach organization, Silent Spring Institute. The academic-community collaborative is multidisciplinary and includes researchers from Brown University (Department of Sociology, Department of Community Health, School of Medicine and the Center for Environmental Studies), University of California Berkeley (Department of Environmental Science, Policy and Management and the School of Public Health), and scientists and community outreach specialists from both Silent Spring Institute in Massachusetts and Communities for a Better Environment in the San Francisco Bay Area. By developing advisory boards in both Massachusetts and the San Francisco Bay Area, the team engages with and solicits ongoing feedback and input from environmental justice organizations, breast cancer advocacy organizations, community residents, environmental health scientists, and healthcare and public health professionals.

Public Health Impacts

Our team is leading efforts to create alliances between environmental justice and breast cancer activist organizations in Rhode Island, Massachusetts, and California. We hosted a media training for environmental health activists in Providence, RI (Fall 2005). We sponsored a forum at Brown University entitled “Women of Color, Breast Cancer, and the Environment,” cosponsored with Providence Environmental Justice Forum. The forum was publicized to community groups and many community members attended. We sponsored the “Rachel Carson Birthday Celebration” at Brown University, with the Superfund Basic Research Program (May 2007). In Massachusetts, PI Julia Brody spoke at the Black Women and Breast Cancer Conference in Boston, MA (April 2007), organized by Silent Spring Institute’s founding organization, Massachusetts Breast Cancer Coalition; more than 100 women attended.

*We are educating community members through community meetings and the news media about indoor exposures to EDCs that originate from products and activities used in the home as well as outdoor sources. We host annual community forums on Cape Cod chaired by local elected officials (May 2006, November 2007). We hosted three community meetings in Richmond to announce the household sampling program and recruit study participants (2005), kick-off data collection (2006) and report preliminary results (2007). We developed a Spanish-language segment of the documentary *Toxic Bust* that was screened at the kick-off meeting.*

We have provided technical assistance to communities and other researchers about biomonitoring and reporting of personal exposures. For example, the team consulted with the Alaska Center for Action on Toxics, the Collaborative on Health and the Environment – Alaska, and the Cincinnati Breast Cancer and the Environment Research Center. Team members Julia Brody and Rachel Morello-Frosch were invited speakers at the Boston Consensus Conference on Biomonitoring (December 2006).

Policy Impacts

Drawing on our research on endocrine disruptors, the team advised the Alliance for a Healthy Tomorrow on Safer Alternatives legislation, and Ruthann Rudel provided technical assistance to communities evaluating state highway department herbicide use.

Publications

Brody, J.G., J. Tickner, R.A. Rudel. Community-Initiated Breast Cancer and Environment Studies and the Precautionary Principle. *Environmental Health Perspectives*, 133(8), 920-925.
Format: journal article Date: August 2005

Breast Cancer Resources for Women of Color
Format: handout Date: March 2005

Breast Cancer Advocacy and Environmental Justice
Format: poster Date: March 2005

Linking Breast Cancer Advocacy and Environmental Justice
Format: poster Date:
September 2005

Breast Cancer and Environmental Justice: What's the Connection? The Watchdog, Communities for a Better Environment's newsletter.

Format: newsletter article Date: 2006

Massachusetts Health and Environment Information System

Format: interactive web

mapping tool Date: June 2006

Findings of the Cape Cod Breast Cancer and Environment Study

Format: report/booklet

Date: July 2006

Brody, J.G., R.A.Rudel, R. Morello-Frosch, P. Brown, A.J. Napolis, R.G.Altman, C. Osimo, C. Perez, L. Seryak, and A. Just. Environmental justice and breast cancer advocacy: Household exposure to endocrine disrupting compounds. 134th Annual Meeting of the American Public Health Association, November, Boston, MA

Format: presentation Date: 2006

Brody, J.G. Cancer and environmental health: A collaborative model of engagement. 134th Annual Meeting of the American Public Health Association, Boston, MA

Format: presentation Date: November 2006

Morello-Frosch, R., J.G. Brody, M. Frye, P. Brown, R.G. Altman, R.A. Rudel, C. Perez. Right-to-know, the right-to-act, and the right not-to-know: Ethical and scientific dilemmas of reporting data in biomonitoring and environmental exposure studies. 134th Annual Meeting of the American Public Health Association, Boston, MA

Format: presentation Date: November 2006

Rudel, R.A., E. Newton, A. Zota, J.G. Brody. Urinary phthalate metabolites are correlated with phthalates, the estrogenic compounds 4-butyl phenol and o-phenyl phenol, and some pesticides in home indoor air and house dust in a preliminary analysis. Future Research on Endocrine Disruption: Translation of Basic and Animal Research to Understand Human Disease, Durham, NC.

Format: poster Date: August 2007.

Brody, J.G., R. Morello-Frosch, P. Brown, R.A. Rudel, R.G. Altman, M. Frye, C.A. Osimo, C. Perez, L.M. Seryak. Improving disclosure and consent: "Is it safe?": New ethics for reporting personal exposures to environmental chemicals. American Journal of Public Health 97:1547-1554.

Format: journal article Date: Sep 2007

Zota, A.R., R.A. Rudel, R. Morello-Frosch, D.E. Camann, J.G. Brody. Regional variation in levels of indoor polybrominated diphenyl ethers may reflect differences in fire safety regulations for consumer products. 17th Annual Conference of the International Society of Exposure Analysis. Research Triangle Park, NC.

Format: conference presentation Date: 2007

Household Exposure Study Chemicals.

Format: handout (English and Spanish) Date: March 2007

Household Exposure Study Factsheet.

Format: handout (English and Spanish) Date: March 2007

"Body of Evidence: Reproductive Health and the Environment" Health and Environment Bulletin for Health Care Providers, Collaborative for Health and the Environment-Alaska and Alaska Community Action on Toxics

Format: newsletter article Date: Spring 2007

Contact Information

PI

Julia Brody, PhD
Silent Spring Institute
29 Crafts Street
Newton, Massachusetts 02458
617-332-4288(phone) 617-332-4284(fax) brody@silentspring.org(email)

Collaborator

Phil Brown, PhD
Brown University
Department of Sociology

Collaborator

Rachel Morello-Frosch, PhD, MPH
University of California, Berkeley
Department of Environmental Science, Policy and Management & School of Public Health

Collaborator

Carla Perez
Communities for a Better Environment
1440 Broadway, Suite 701
Oakland, California 94612

Ethics: A Bridge for Communities and Scientists

Grant Number: R25ES012073

Funded By: NIEHS

Principal Investigator

Ann Cook, The University of Montana

Collaborators

Bill Patten

CEO

St. John's Lutheran Hospital

Project Aims

- Assess community knowledge of health impacts including gaps in public understanding of asbestos-related disease;
- Develop and implement a culturally appropriate and accessible educational curriculum that will help the public understand: the risks of environmentally related disease, the ethical and economic implications associated with those risks, and the strategies that protect against discrimination and psychological stress;
- Fortify and extend the ongoing dialogue between scientists and the public by combining the translations of the scientific findings and community knowledge into an educational curriculum that is culturally appropriate and accessible for Libby and other communities dealing with asbestos-related diseases;
- Assess the impact of the educational interventions provided during the five-year project so as to ensure that all methodologies are responsive to evolving needs.

Project Summary

An asbestos-contaminated vermiculite mine, operated in the Libby, Montana, from the 1920s through 1991 created occupational exposures to asbestos fibers that were as high as 130 fibers/cc; the current occupational permissible exposure limit (PEL) is 0.1 fibers/cc. Exposure was not limited to workers, but extended to residents throughout the community. Exposure to asbestos fibers among Libby-area workers and residents has been conclusively linked to the development of asbestos-related diseases (ARD). These diseases include asbestosis, bronchogenic carcinoma, mesothelioma and pleural plaque fibrosis of the pleural lining. Funding from the NIEHS through an ELSI grant allowed us to conduct a broad based community project, Ethics - A Bridge for Communities and Scientists (E-ABCs), that supported development of a curriculum and other resources that translate scientific findings into useful and ethically relevant information for various constituencies throughout the community. Special efforts were undertaken to dispel myths, clarify scientific information, and develop appropriate resources and activities that made it possible to reach underserved groups including senior citizens and school-aged children. The on-site project manager facilitated collaborative efforts among federal, state, and local private and public agencies. Project results, resources and the manual for community education are available online (<http://www.umt.edu/libbyhealth>).

Public Health Impacts

When initiating activities like health screenings, it is important to anticipate that residents may find it hard to distinguish between concepts such as screening and diagnosis, and treatment and research. They also have a hard time assessing whether the research would result in new treatment, maybe even a cure, or whether the research is merely designed to support commercialization of a new product. Many residents believe that participation in studies provides access to optimal treatment and will result in a cure. Our findings suggest that commonly accepted research protocols may not adequately protect vulnerable populations. When agreeing to undergo a

health screening Libby residents were often unaware of the potential psychological harm to individuals or family members that may result from their perceptions about the testing and the meaning of results. Residents found it hard to assess the risks associated with screenings; few understood the potential for the misuse of risk information in insurance and employment discrimination. Our findings suggest that rural populations need additional protections when faced with decisions to participate in research and screening activities. Uncertain scientific knowledge related to risk assessment seriously undermines a community's ability to adequately assess risk and prioritize interventions. When knowledge about risks is uncertain, competing priorities within and among local, state and federal departments can impede protection of public health. An environmentally contaminated community needs ongoing and sustained access to new scientific information including information about risks, co-morbidities, and gene-environment interactions that may be associated with health status. Economically disadvantaged communities face real challenges in initiating and sustaining public information activities. When a significant environmental problem occurs, the willingness to take appropriate action requires fulfillment of three conditions: recognition and acknowledgement of the problem, belief that the consequences of planned action can be handled, and belief that meaningful change can occur. These three conditions do not follow a linear progression but appear to be interdependent upon one another. Thus a problem may appear to be quite evident but if one questions the ability to handle consequences, that problem may not be recognized or acknowledged. If one recognizes the problem and believes the consequences can be handled, but doubts the likelihood of change, the severity of the problem may be minimized over time.

Policy Impacts

Community decisions flow from scientifically accurate risk assessment and so provision of accurate risk assessment information must be top priority. Data show that the public is much less sensitive than experts to considerations of dose and exposure. Even when information about risks and benefits is provided in simple, lay language, it may not be well understood or appreciated by most cognitively normal adults because the concepts involved are ones most adults cannot understand or appreciate to a significant extent. Community Based Participatory Research (CBPR) has the potential to be a very exciting form of research in environmentally challenged communities. When successful, it has every chance of creating lasting change. But it is important to determine the conditions under which CBPR is an appropriate approach. In some situations CBPR should probably not be considered. Professionals need help and training about risk perception, communication, and management to help community residents make safe and appropriate decisions about exposure to environmental contaminants. Publications are expected from government funded research and projects. But when conducting EJ and ELSI projects, it may not be possible to report findings without identifying a given community. Identification can be ethically problematic for many reasons; it can violate confidentiality and compromise relationships among stakeholders especially when there are contentious issues. Issues associated with publication become especially problematic when dealing with small or rural communities in which all residents have a stake in the problem. The reluctance to publish, however, means we do not learn the strengths and limitations of new approaches like CBPR. Moreover, it may not be possible to publish the findings from research conducted in environmentally contaminated communities when those communities are heavily involved in litigation. This issue needs in-depth exploration as well as policy and protocol development. Research has the potential to become an extractive industry in some environmentally damaged communities and current protocols for ensuring protection of research subjects may be inadequate.

Publications

Asbestos and Libby Health: <http://www.umt.edu/libbyhealth/>
Format: Website
Date: 2003

Ethics - A Bridge for Communities and Scientists: A Manual for Community Education:
[http://www.umt.edu/libbyhealth/whats_new/Binder I Libby%20Manual%206_26_07.pdf](http://www.umt.edu/libbyhealth/whats_new/Binder%20I%20Libby%20Manual%206_26_07.pdf)
Format: Online
Date: 2007

Community Education Activities: http://www.umt.edu/libbyhealth/learning_activities.htm
Format: Online
Date: 2005

Contact Information

PI

Ann Cook
Associate Professor, Research
The University of Montana
Researcher
Department of Psychology
The University of Montana
Missoula, Montana 59812

Collaborator

Bill Patten
St. John's Lutheran Hospital
350 Louisiana Ave
Libby, Montana 59923

Partnership to Reduce Asthma and Obesity in Latino Schools

Grant Number: 5 R25 ES013207-02

Funded By: NIEHS

Principal Investigator

Rochelle S. Davis, Healthy Schools Campaign

Collaborators

Idida Perez
Executive Director
West Town Leadership United

Jovita Flores
Coordinator
Little Village Environmental Justice Organizations

Dianne Rucinski, PhD
Senior Evaluator
Naomi Morris Collaborative School of Public Health UIC

Project Aims

- 1) Develop a better understanding of the impact of the school environment, and a large school district's policies that influence this environment, on asthma and obesity.
 - a) Develop descriptive flow-chart on decision making process around intervention in each community
 - b) Validate flow-chart with key players.
 - c) Observe how structure works and is implemented and how it impacts policy at the local school environment.
- 2) Develop a common language between 'professionals' and 'community members/parents' that will be used to motivate school administrators to take action to improve the school environment.
 - a) Through training and on-going dialogue, promote the development of shared perspectives among various stakeholders over time.
- 3) Evaluate two different models of community organizing in a school-based setting.
 - a) Develop accurate descriptions of how community based organizations worked to improve health in schools.
- 4) Open lines of communication and working partnerships between schools and community health providers.

Project Summary

The Partnership to Reduce Disparities in Asthma and Obesity in Latino Schools, which brings together community-based organizations, advocacy organizations, health providers and the Naomi Morris Collaborative at the University of Illinois-Chicago School of Public Health, uses a community-based participatory research model to create a community-led process to address public health issues in two Latino communities one predominantly Puerto Rican and one predominantly Mexican. The goal of this project is to develop effective strategies for motivating and empowering parents, students and community members in minority urban communities to shape school policies relating to school environmental health and wellness.

Through the Partnership, the project intends to mobilize the two school-centered communities as a means of reducing disparities in two major chronic diseases, asthma and obesity, as related to school absenteeism, hospitalizations, and learning disabilities among youth. Due to the limitation of data for each school, a key activity was to engage in a participatory leadership development community planning process and developing a School Action Planning Process to identify the specific health disparities around outcomes that will lead to the development of a school action plan describing, among other elements, community strengths and sustained interventions needed. This is being accomplished by having the collaborators facilitate capacity-building and providing on-going training, technical assistance, and consultation to organizations, as needed.

Using the lessons learned, the partners began to work with parents in other communities in order to have an impact on a district-wide school wellness policy as a means to address health disparities among the Latino community. Project partners brought together over 1,000 parents from across the city to advocate for a school wellness policy that would support healthier schools, increased student access to physical activity, and institute accountability structures.

Public Health Impacts

By fostering environmental justice in schools in Latino communities, we will have a better understanding of both the physical and decision-making environments to address the disparity in prevalence of asthma and obesity in minority student populations. By developing a common, effective language between ‘professionals’ and ‘community members/parents,’ they will be able to work together to deliver messages that will activate and involve administrators, and therefore reduce the incidences of asthma and obesity in minority student populations. Because the school community is so crucial to the success of maintaining good school environmental health, it is important to identify valuable models of community organizing that work well in a school setting. By creating a dialogue between schools and providers, the reduction of health disparities will be facilitated.

Policy Impacts

The first step will ensure commitment from local schools using a community-based approach. We realize that the technical language of the professionals must be conveyed to schools in such a way so that it is understandable and relevant to their concerns, which includes the issues surrounding asthma and obesity.

The project brings together community leaders, medical professionals, and academics. Each organization came to the table with different perspectives on and about the salient issues as well as different primary audiences. Building trust, a shared vision, and common language was essential. The process of developing a common language is central to the work of this partnership. Because partners come from academia, community settings and health advocacy, shared experiences and reference points cannot be assumed, and partners dedicated time to finding language that bridges those divides. To document the process of developing a common language, during this project period the evaluators developed an internal survey and used this survey tool to interview project partners. The second step of providing the school communities with tools and resources will be accomplished through the project’s interventions as defined by the communities themselves; they may include asthma education training, childhood obesity prevention training, nutrition best practices, improving school health environments, and sample policy language.

The Partnership identified and adopted strategies for improving school wellness. Based on extensive community input, each CBO chose the focus for its intervention, developed strategies, and has begun creating change: The Little Village Environmental Justice Organization is focusing on improving school food, and West Town Leadership United is addressing access to health services, including the establishment of a school based health clinic.

From the Partnership’s work, a coalition of more than 30 independent parent organizations representing eight Chicago communities formed Parents United for Healthy Schools/ Padres Unidos Para Escuelas Saludables. The group provides a voice for parents and communities that want to create policy changes and improve school wellness, including healthier school food and increased exercise in Chicago Public Schools.

The Partnership will present its findings to the school's local school councils and the Chicago Public School Board and recommend a policy change. The Action Plan may recommend that the school implement a school wellness policy to include salad bars, reinstatement of recess and an increase of physical education, or a The third step involves how health providers likely treat a large number of students as individual cases, rather than viewing them as a community that is exposed to the same school environmental stressors. With their participation, they will establish a dialogue between the health providers and administrators and open lines of communication that do not currently exist.

Community partners have engaged parents in dialogue about health and education, making the connection between lifestyles, health and their children's readiness to learn and have formed the Parents United for Healthy Schools/Padres Unidos para Escuelas Saludables, a coalition which brings together 30 community organizations and parent groups from across Chicago out of concern for the skyrocketing rates of childhood obesity and asthma and was instrumental in successfully advocating for a comprehensive school wellness policy in the Chicago Public School district focusing on nutrition, nutrition education, physical activity and physical education. Given the parents' interests, the groups provided programming that introduced parents to healthy lifestyles on an individual level and included activities such as nutrition education, community gardening, exercise programs and cooking classes. At the same time, community partners engaged parents in dialogue about the importance of the school environment and involved them in advocacy work in their schools and are now at the beginning of implementing school health councils. The fourth step involves several of the project's key partners that are health providers in the two Latino communities. This project is creating relationships that will yield more health resources for the schools and undoubtedly aid in the reduction of health disparities.

Since the start of the project, a City-Wide Advisory Committee was formed to educate and engage key policymakers and citywide leaders on the issue of health disparities impacting the Latino community. The advisory committee includes dozens of individuals representing organizations, public health agencies and universities, as well as public officials and community stakeholders.

Additionally, the community based organizations (CBOs) implemented leadership development strategies based on their existing models of community organizing and built a team of leaders in each community. Community organizing is founded on the principle that community members can come together around shared issues and visions and based on this common self interest, create institutional change and address issues of justice through collective action. The CBOs used the existing community networks and communication processes that they have developed to identify issues and leaders. In each community, a core group of leaders emerged and has been active and engaged in the process. The community groups have continued to engage more than 100 parents and community members in trainings related to personal wellness and school health.

Moreover, an intensive four-part training prepared 25 parent leaders to establish and maintain effective school health councils and use the councils as venues for creating change in school environmental health and wellness. Since the training, parents have begun establishing councils in 12 Chicago public schools. As a result, in response to such concerns about childhood obesity and health disparities, Chicago Public Schools have made changes to improve the quality of the food available at schools, adding more fruits and vegetables while removing trans fats and whole milk. Deep fryers are no longer used by any elementary schools district-wide or by 55 high schools, and the fryers will not be used in any CPS schools by 2009.

Conclusively, in order to evaluate the impact of their work, both organizations are using formal evaluation protocols to collect baseline data and engaged parents in conducting evaluations; Little Village Environmental Justice Organization conducted a random diary sample of student food consumption with 150 participants at the Little Village Academy, and West Town Leadership United collected 300 random surveys.

Social Ecological Model. Using this model allows the Partnership to focus simultaneously on individual and community conditions, barriers and benefits while balancing short-term and long-term benefits and outcomes.

Social Justice as a Motivating Frame. Examining school health issues with a social justice lens resonates with the lived experiences of community members and corresponds with the mission of CBOs.

Collaborating with CBOs known for organizing skills rather than pre-existing commitment to health. The Partnership experience demonstrated that the dissemination of health information was bolstered by organizing acumen and did not compete with the other goals and campaigns of the CBOs. The strong leadership and organizing abilities of CBOs altered traditional relationships with university partners.

Community Based Participatory Research. The techniques involved in Community-Based Participatory Research (CBPR) illuminate the ways in which characteristics of CBOs influence the processes they use for intervention and information-gathering. The experience suggests that CBPR is particularly effective in health promotion efforts because the research begins with the community, is assisted by the community and, if successful, will benefit the community; hence, the community is more receptive to the intervention.

Publications

Partnership to Reduce Asthma and Obesity in Latino Schools Giving a Boost to Student Health

Format: pdf

Date: Fall 2004

Partnership to Reduce Asthma and Obesity in Latino Schools Fall Report 2005

Format: pdf

Date: Fall 2005

Partnership to Reduce Asthma and Obesity in Latino Schools/Parents United/ Fall 2006.

Format: pdf

Date: Fall 2006

Partnership to Reduce Asthma and Obesity in Latino Schools Creating School Wellness Teams in Chicago 2007

Format: pdf

Date: Fall 2007

Partnership to Reduce Asthma and Obesity in Latino Schools Creating School Wellness Teams in Chicago 2007

Format: pdf

Date: Fall 2007

Contact Information

PI

Rochelle S. Davis
Executive Director
Healthy Schools Campaign
Community-Based Organization
205 W. Monroe 4th Floor
Chicago, Illinois 60606

Collaborator

Idida Perez
West Town Leadership United
1116 N. Kedzie
Chicago, Illinois 60651

Collaborator

Jovita Flores
Little Village Environmental Justice Organizations
2856 S. Millard
Chicago, Illinois 60623

Collaborator

Dianne Rucinski, PhD
Naomi Morris Collaborative School of Public Health UIC
1747 W Roosevelt, rm. 558
Chicago, Illinois 60608

Strengthening Vulnerable Communities in Worcester Built Environment

Grant Number: IR25-ES013210-01

Funded By: NIEHS

Principal Investigator

Timothy J. Downs, Clark University

Collaborators

Suzanne Patton
VP of Development
Family Health Center

Peggy Middaugh
Executive Director
Regional Environmental Council

Brenda Gadson
Interim Director
Worcester Youth Center

Project Aims

General Aim:

Our overall aim is to test the following coupled working hypotheses: a) A manageable, reduced set of primary built environment stressors of a physical, chemical and socio-economic nature conspire together to drive human health/well-being vulnerability in Worcester City's Main South and Piedmont Neighborhoods; and b) this socio-ecological vulnerability system can be described and improved through a participatory process that fosters experiential learning, builds community ownership, strengthens the adaptive capacity of those at risk, and makes environmental and health promotion policies more responsive to those most in need.

Specific Aims

Our specific aims are to answer the following research and practice questions:

1. How can five stakeholder groups vulnerable communities -- researchers, a health outreach agency, a non-governmental organization and regulators -- work together to characterize socio-ecological conditions in the pilot sites, especially primary environmental stressors and their interactions with secondary economic and socio-political stressors? How do we build a systems-model of the vulnerability?
2. How can stakeholders design a Strategic Plan to reduce vulnerability to environmental stress by manipulating those parameters that seem to be driving its dynamics? How do we respond in ways promising maximum net positive impact?
3. How can we build local adaptive capacity in the municipal Piedmont-Main South neighborhoods and supporting capacity to ensure interventions are cost effective, adaptive and sustainable over time?
4. How do we implement the Plan in a collaborative manner that shares responsibilities and benefits among stakeholders?
5. How do we monitor the performance of interventions (especially on public health and well-being indicators used to answer Question 1), improve our model of the vulnerability system, and re-inform the cyclical assessment, planning and action process?

Project Summary

Low-income people living in depressed neighborhoods of Worcester, MA, are disproportionately exposed to environmental stressors: 1) a major toxic chemical pollution burden; 2) unhealthy physical features like brownfields and lack of greenspace, and 3) pervasive social violence and insecurity. Compounding their vulnerability is limited adaptive capacity rooted in socio-political and economic stress. Approaches that focus on single problems will be ineffective. Our working groups of local community representatives, researchers, city health and environment agencies, the youth center and a local NGO plan an inclusive, systems-based approach to improve adaptive capabilities in Worcester's Piedmont and Main South Neighborhoods. Worcester was once the heartland of the American Industrial Revolution, and its built environment now bears a significant historical ongoing pollution burden. Similar conditions are found in many medium-sized cities across industrial America. The project has four stages, all neighborhood-based: 1) Strategic Assessment detailed descriptions of the baseline; 2) Strategic Planning - identification of priority stressors and opportunities; 3) Implementation making priority interventions and developing capacity; and 4) Performance Monitoring - measurement to detect significant changes (post- vs. pre-policy values). Products will include: neighborhood centered databases, planning documents, and evaluation reports; a practitioners manual; and research reports of observations and findings. Two hypotheses are tested: a) Primary built environment stressors of a physical, chemical and socio-economic nature conspire together to create vulnerability in Worcester's Main South and Piedmont Neighborhoods; and b) this ability system can be described and improved through a participatory process that fosters experiential learning, builds community ownership, strengthens adaptive capacity of those at risk, and makes environmental and health promotion policies responsive to those most in need.

Public Health Impacts

The Technical Advisory Group (TAG), comprising of Clark University faculty, student researchers and staff from the Family Health Center, the Regional Environmental Council, and the Worcester Youth Center conducted a visioning process that helped to focus the project on three main outcomes:

1. Gathering information and training resource data (surveys, indoor and outdoor sampling--data and protocols, oral history, asthma project) into a Information Resource Center;
2. Developing neighborhood leadership capabilities. Community-based participation in the trash project, one of the Working Groups, has led to a systems change in the development of a neighborhood-based bulk waste collection model.
3. Committing to addressing environmental health concerns through the development of Health Outreach Workers and Youth Health Outreach Workers.

The project has been instrumental in the formation of a multi-partner action group focused on childhood lead poisoning and making homes lead-safe in Worcester, MA. The Worcester Lead Action Collaborative (WLAC) includes representatives from the MA State Department of Public Health, the City of Worcester Department of Public Health, Property Owners association the NIEHS partners, refugee resettlement agencies and several community-based organizations. The WLAC is actively engaged in outreach and dissemination of information about lead abatement programs. In October 2007 the WLAC held a "Lead Poisoning Prevention Summit" which was attended by over 120 social and health service professionals from throughout Massachusetts. Toxics Watch, another of the project's working groups, is made up of local residents, student researchers, Clark faculty, and Regional Environmental Council staff who are working on two neighborhood issues: sampling of indoor toxics and making systemic changes for dealing with trash. They have developed protocols to help residents understand the potential hazards in their homes and what they can do about it. A very engaged and enthusiastic community group has led the way in developing a model for bulk trash collection and getting more trash barrels on Main Street. The Health Outreach Working group, a partnership between residents, community-based organizations, and health care providers in Main South and Piedmont neighborhoods, seeks to better understand and address health concerns as they are impacted by environmental risks. The group has concluded a series of listening sessions, to link residents to wellness services, to improve the overall health of individuals, families and our community. The Listening sessions opened doors to greater collaboration between the community health center and local agencies that outreach to specific constituencies within the health center's target population, and created more unified efforts to assist people who are seeking access to health care services. The Youth Health Outreach Workers, a

group of young people from the Worcester Youth Center with the guidance of Clark students, received a grant from TURI to educate residents about toxics in household products.

Policy Impacts

The Worcester Lead Action Collaborative (WLAC), a multi-partner action group focusing on childhood lead poisoning and making homes lead-safe, was successful in attaining a \$2.9 million lead abatement grant from HUD for the City of Worcester to remediate 175 households in Worcester. WLAC will help identify homeowners who qualify for the funds with particular emphasis on refugee and immigrant populations. Toxics Watch, another working group, is helping partners engage with residents to conduct environment sampling in their neighborhoods. This is changing the way the local environmental agency connects with residents, helping it to listen and do outreach to a wider group of people. The Listening Sessions with residents and staff of the Family Health Center, the local health care provider, are helping to refine outreach and client navigator roles. Listening session findings are being used to support Community Health Center advocacy efforts at the state level to encourage creation of health insurance reimbursements for the medical case management work that falls within the role of client navigators.

Publications

Ross, L. and T. Downs. (2006) University-Community Partnerships to Promote Environmental Health and Justice in Worcester, Massachusetts. Scholarship in Action: Applied Research and Community Change HUD Office of University Partnerships.

Format: Journal article

Date: 2006

Lowe, C., L. Ross, and T. Downs. Overcoming the Challenges and Harnessing the Benefits of University-Community Collaboration: Addressing Environmental Justice in Worcester, Massachusetts - Built Environment.

Journal of Higher Education Outreach and Engagement

Format: Journal article

Date: To be submitted

Submitted a chapter in a forthcoming book, entitled Effective Practice of Adult-Youth Engagement in Social and Environmental Justice. Working title: Levels of Youth-Adult Partnership in a Participatory Community Planning Process: Developing Parks, Reducing Blight, and Creating Open Space in an Urban Built Environment.

Co-authors: L. Ross, A. Tejani, T. Downs, and C. Lowe.

Edited by Warren Linds, Ali Sammel, Linda Goulet.

Format: Chapter in book

Date: Forthcoming

Downs T.J. and Larson H.J. (2007). "Achieving Millennium Development Goals for health: Building understanding, trust and capacity to respond". Health Policy. 83(2-3): 144-161.

Format: Journal Article

Date: 2007

Household-level environmental hazards testing protocol.

Oldham, J., D. Adams, C. Calvache, P. Middaugh, and T. Downs

Format: Report

Date: 2007

Household-level environmental hazards testing results reports for 8 pilot homes. Oldham, J., D. Adams, C. Calvache, P. Middaugh, and T. Downs

Format: Report

Date: 2007

Contact Information

PI

Timothy J. Downs
Professor
Clark University
Researcher
950 Main Street
Worcester, Massachusetts 01610

Collaborator

Suzanne Patton
Family Health Center
26 Queen Street
Worcester, Massachusetts 01610

Collaborator

Peggy Middaugh
Regional Environmental Council
P.O. Box 255
Worcester, Massachusetts 01613

Collaborator

Brenda Gadson
Worcester Youth Center
326 Chandler Street
Worcester, Massachusetts 01609

Healthy Food, Healthy Schools and Healthy Communities

Grant Number: R25 ES012578

Funded By: NIEHS

Principal Investigator

Robert Gottlieb, Occidental College

Collaborators

Susan S. Gilliland, PhD, MPH, RN

Research Associate

USC

Nancy Halpern Ibrahim

Associate Director

Esperanza Community Housing Corporation

Carlton Davenport

Associate Director

Blazer Youth Foundation

Project Aims

The goal of the Healthy Food, Healthy Schools, and Healthy Communities project is to facilitate positive, community-driven changes in local nutrition environments in Los Angeles schools and communities that suffer disproportionately from diet-related poor health conditions. The project is designed to evaluate access factors in those schools and communities; raise nutrition, environmental and food access awareness; promote school and community involvement in shaping the nutrition environment; develop and implement intervention strategies; and assess the environmental and policy impact of those strategies. Activities include the training of low-income Latino and African-American students, parents, and residents to undertake community and school food assessments; the development of appropriate and feasible action plans to address poor nutrition environments and policies; and the creation of community-based coalitions and networks to mobilize efforts to move intervention strategies forward. Project partners include the Center for Food & Justice at Occidental College, the Healthy School Food Coalition, Esperanza Community Housing Corporation, Blazers Youth Services Community Club, Inc, the University of Southern California, and Childrens Hospital Los Angeles.

Project Summary

The Healthy Food, Healthy Schools, and Healthy Communities project, also known as Project CAFE (Community Action on Food Environments) has disseminated results of the community food assessment, developed an action strategy for improving food access in target neighborhoods, and built and participated in campaigns to improve access to nutritious and affordable foods in the target communities.

On May 19, 2006, over 75 community members attended a Community Celebration and Forum on Healthy Food Access. At this event, nearly 50 community members were honored for their efforts to improve food access in their neighborhoods through Project CAFE. Project partners presented the results of the community food assessment and announced a five-point campaign strategy for healthy food access.

- Inform public policy by addressing inner-city supermarket redlining: Attract new stores to project areas.
- Improve local services: Work with existing convenience/liquor/corner stores to modify their merchandise and product placement.

- Enhance the community's food resources to meet its own needs and build stronger ties between farmers and consumers: Start farmers' markets on school campuses.
- Build on community assets and include community in all phases of project planning, implementation and evaluation: Get food access goals into City of Los Angeles community plan updates.
- Use a systems-oriented inter-disciplinary collaborative approach: Create a city-wide network to advocate for and advance food justice goals and policies.

To disseminate the results among decision-makers, project partners have met with potential allies, business owners, City of Los Angeles Department of Planning staff, and Los Angeles City Council members. Project CAFE has also been engaged in media advocacy around these issues, and Center for Food & Justice Director Mark Vallianatos has been quoted in several articles about a proposed moratorium on new fast food development in South Los Angeles, an area already saturated with to-go restaurants with few nutritious options and lacking healthy food options, as identified in the CAFE community food assessment.

Project partners and community members have begun dialogue, starting with a face to face meeting, with the grocery chain Tesco. Tesco is opening its Fresh and Easy Neighborhood Markets in Los Angeles, and Project CAFE partners are urging them to locate stores in areas of most need. Project CAFE has also joined a larger coalition on issues linked to urban food access, worker rights, and environmental concerns. Project Manager Andrea Azuma also attended a convening on grocery store development in underserved markets, where developers and community advocates talked about the challenges and successes in bring food retailers to urban areas.

In the school setting, CAFE organizers have made great strides working through the Los Angeles Unified School District's Cafeteria Improvement Committee. Established through previous advocacy work on school food policies, the committee oversees implementation of the Cafeteria Improvement Motion. Changes that have been enacted over the past year include elimination of trans-fat in all foods, reduction in number of entrees served that are high in saturated fat, and an increase in the availability of fresh, cut fruit.

Public Health Impacts

1. Over 75 people attended the community forum and celebration where the results of Project CAFÉ's community food assessment were presented and community members provided testimony of their participation in the project and the challenges they face in accessing healthy food. Participants learned about food disparities and the linkages between food access and health, celebrated the accomplishments of CAFE and kicked-off the next phase of the project.
2. Project CAFE has increased community capacity to identify unjust food access and advocate for healthy school food policy as one strategy for making improvements to food environments.
3. The project has identified the local community and its settings, such as schools, as an important arena to develop local level policy-making to improve public health.
4. Project partners are committed to a participatory process to shift peoples' thinking beyond individual illness to consideration of health-food connection for the community and illuminate the community's capacity to improve conditions for a healthier public, which is essential for success.
5. Advocacy work at the school district level has yielded significant improvements in the school meal programs, including elimination of trans fats and increase availability of fresh fruit for students.

Policy Impacts

1. Project partners have met with local city council members and staff to educate them about the need for city policies to support improved food access in project target areas.
2. Project participants are becoming educated on the role of urban planning in shaping food environments and are participating in the policy process to influence community plan updates in the City of Los Angeles. They are pushing city planners to consider food access as a component of a healthy neighborhood and to utilize planning tools to spur food access opportunities and improvements.
3. Student participants and project staff participated in Hunger Action Day, meeting with elected officials in the state capital to advocate for legislation to improve fresh food access.

4. Project partners are supporting a moratorium on new fast food development in south Los Angeles, including areas in the Project CAFE target neighborhoods. Staff have been quoted in media articles in support of the moratorium and the need for other policies to improve healthy food options in low-income neighborhoods.
5. Important healthy food policies adopted by the Los Angeles Unified School District are being monitored and implemented with representation from Project CAFE.

Publications

Students Seek Food That's Fresh, Not Fast. Los Angeles Times, March 10, 2005.

Format: newspaper article

Date: March 10, 2005

Healthy School Food Policies: A Checklist

Format: UEPI Working Paper

Date: June 2005

Robert Gottlieb, Mark Vallianatos, and Margaret Masch, Farm to School: Strategies for Urban Health, Combating Sprawl, and Establishing a Community Food Systems Approach, "Journal of Planning Education and Research," Summer 2004, Vol. 23, No. 4.

Format: journal article

Date: Summer 2004

Robert Gottlieb, Forcing the Spring: the Transformation of the American Environmental Movement, Revised Edition, Island Press, 2005.

Format: book

Date: 2005

Peas in our time : South-central bulldozing suggests we need more planning for community gardens. Robert Gottlieb. LA Times. June 25, 2006.

Format: newspaper op-ed

Date: June 25, 2006

Let a thousand habaneros bloom. Robert Gottlieb. Los Angeles Times. Oct 2, 2005.

Format: newspaper op-ed

Date: October 2, 2005

Farm to School and Walking and Biking on the Freeway: Reframing the Connections Between Food, Transportation, Health, and the Environment, Keynote Presentation, "Healthy Communities by Design" conference and tri-county summit, Salinas, California, May 1, 2006

Format: presentation

Date: May 1, 2006

Shaffer A, Vallianatos M, Azuma AM and R Gottlieb. Changing the Food Environment: Community Engagement Strategies and Place-Based Policy Tools that Address the Influence of Marketing. Loyola Law Review. 39(1): 2006.

Format: journal article

Date: 2006

Presentation at the American Public Health Association Annual Conference. Andrea Azuma. Boston, MA. December 6, 2006.

Format: conference presentation

Date: December 6, 2006

Project CAFE report on community food assessment results. Center for Food & Justice, UEPI, Occidental College. May 2007.

Project CAFE summary sheet. Center for Food & Justice, UEPI, Occidental College. May 2007.

Format: reports

Date: May 2007

Shopping for a Market Evaluating Tesco's Entry into Los Angeles and the United States. A Report of the Urban & Environmental Policy Institute. Amanda Shaffer, Robert Gottlieb, Vanessa Zajfen, Mark Vallianatos, Benjamin Nyberg, Peter Dreier. August 1, 2007.

Fresh & Easy's Environmental and Food Access Commitments: An Update to the August 2007 Shopping for a Market Report. A Report of the Urban & Environmental Policy Institute. Amanda Shaffer, Robert Gottlieb, Ben Nyberg, Molly Franson, Madeline Wander. November 6, 2007.

Format: reports

Date: August 2007, November 2007

Presentation at the National Association of City and County Health Officials Annual Conference. Andrea Azuma. July 12, 2007.

Presentation at Farmlab's Friday salon series. Andrea Azuma and Elizabeth Medrano. Los Angeles, CA. September, 28, 2007

Format: conference presentation

Date: July 12, 2007

Contact Information

PI

Robert Gottlieb
Professor and Director
Occidental College
Researcher
1600 Campus Road
MS M-1
Los Angeles, California 90041

Collaborator

Susan S. Gilliland, PhD, MPH, RN
USC
Department of Preventive Medicine Statistical Consultation and Research Ctr
1540 Alcazar Street CHP 218 MC 9010
Los Angeles, California 90033-9010

Collaborator

Nancy Halpern Ibrahim
Esperanza Community Housing Corporation
2337 S. Figueroa Street
Los Angeles, California 90007

Collaborator

Carlton Davenport
Blazer Youth Foundation
1517 West 48th Street
Los Angeles, California 90062

Assessing and Controlling Occupational Risks Among Immigrants in Somerville, Massachusetts

Grant Number: 5 R25 OH008776-02

Funded By: NIOSH

Principal Investigator

David M. Gute, Tufts University

Collaborators

Alex Pirie

Coordinator

Immigrant Services Provider Group

Rose Goldman, M.D.

Director, Occupational and Environmental Medicine

Cambridge Health Alliance

Project Aims

1. Create and implement an annual on-going needs assessment that will characterize and track changes in the understanding of occupational risks and job-related work practices among immigrant populations residing in Somerville.
2. Establish a Teen Educator-based sustainable community capability for gathering and disseminating information on work and health among these immigrant populations.
3. Create a community-based organizational structure, a cooperative, to address work-related risks to immigrant workers in Somerville. The initial focus of the Cooperative will be to address the needs of women housecleaners.

Project Summary

Tufts University, in concert with its partners, the Immigrant Service Providers Group (ISPG) as the community-based organization and the Cambridge Health Alliance as the health care provider have implemented a four-year, three-part program to address occupational health risks to immigrant workers in Somerville, MA. Somerville, known as a “gateway” community due to the diverse variety of immigrant populations and community organizations, as well as remarkable temporal shifts in its immigrant population, represents a unique laboratory for this activity. For example, this project leverages existing peer youth and adult educational training and advocacy programs for immigrants. These programs have been successfully implemented by certain members of the ISPG (Haitian Coalition and the Community Action Agency of Somerville) on issues ranging from tobacco use to ambient environmental hazards. We are extending the impact of these successes in designing a sustainable, community-based capability to assess, characterize, and reduce occupational health risks in immigrant populations.

Further, we believe that the very structure and organization of work influences such key issues such as immigrant empowerment and the sustainability of interventions aimed at lessening the impact of occupational injury, illness and mortality. As a result, a pilot Green Cleaning Cooperative “Vida Verde” has been launched to address occupational risks encountered by female immigrant workers engaged in domestic services. This aspect of our project makes use of the significant findings and outcomes from the Collaboration for Better Work Environment for Brazilians (COBWEB) project based at the University of Massachusetts at Lowell and at the Brazilian Immigrant Center in Boston.

The Massachusetts Coalition for Occupational Safety and Health (MassCOSH) is a key partner by sharing its innovative young worker safety peer leadership model and contributing occupational content, materials and training. This partnership also establishes a link to the Dorchester Occupational Health Initiative (DOHI) another Boston metro area immigrant work and environment project. The Tufts/Somerville project builds upon past successes of our partners (peer leadership, building inter-group immigrant working relationships and organizing work around employment and personal safety) and leverages investments made in nearby projects. We will use an annual immigrant occupational assessment to identify needs and best practices in Somerville and actively seek to disseminate this information to other cities and towns with substantial immigrant populations.

As we enter Year Three of the grant significant progress has been achieved. A complement of Teen Educators (N = 8) have been hired and trained and re-staffed as individuals have “graduated” from the program. In both Years 1 and 2 Teen Educators have been interviewed with regards to their knowledge and interest in occupational health and safety. The Teen Educators have continued to refine and implement an occupational health and safety survey instrument of their own design. To date they have completed 183 of these surveys. Year 1 Key Informant interviews (N = 6) have been completed with the community partners and other individuals knowledgeable about immigrant health in Somerville. Year 2 Key informant interviews (N=10) were repeated with these respondents along with health providers and public health professionals in Somerville. Outreach activities of the Teens included participation on a Child Labor Law Task Force convened by MassCOSH to promote community education about the new child safety regulations and participating in the City Youth Council of Somerville. In addition, the Teen Educators have assisted at community partner events including the annual Health Fair of the ISPG and the Domestic Violence Community Event. The Teen Educators have collaborated with Dr. Rose Goldman of the Cambridge Health Alliance to amend the health survey to gather information to plan an immigrant occupational health fair to be held in the first quarter of 2008.

One of the original justifications for working with our Teen Educators (fluently bi-lingual non-native English speakers) was their role as a source of information for, and social connection between, the English only community and their non- or limited English speaking families. Their trainings with MassCOSH and involvement with activities related to child and immigrant labor issues has significantly increased their body of knowledge. The survey work undertaken at community events, particularly resource rich immigrant events and health fairs, has greatly extended their own knowledge of health and safety resources and increased the likelihood that this knowledge will be more broadly disseminated in the non-English speaking communities. Informal review discussions with the Teen Educators have also revealed that they have begun to apply their knowledge of occupational health and safety to their own work lives as well as to that of their peers. Injuries that were seen as “just what happens at work” have been reconceived as avoidable through protective measures or by refusing certain tasks.

The launch of “Vida Verde” the Brazilian Women’s Group Co-Op is a significant accomplishment and was celebrated with speeches, music and festivities on Saturday, December 9, 2006. Also in attendance at this event were a workforce development representative from the City of Boston, a Federal Senator from Brazil, and a representative from a Japanese NGO. The inauguration of the Co-Op has attracted both popular and media attention. This culminated in a front-page story published by the Boston Globe on Thursday, March 22, 2007. NPR’s “Living on Earth” also broadcast coverage of Vida Verde’s development and use of environmentally friendly cleaning products. Newspaper articles were also carried in the Somerville Journal, Framingham TAB, and the Allston-Brighton TAB among other publications.

The creation of the Co-Op also catalyzed a grant submission in conjunction with Newell Lessell of the ICA Group which has successfully obtained a \$10,000 grant for the development of a more extensive business plan from the Catholic Charities of Boston. The initial cohort of members (N=11) is scheduled to be interviewed in the near future to better understand their expectations and motivation for joining the Co-op.

The Pls of the three Boston metro Environmental Justice projects (COBWEB and DOHI) met throughout the period on a quarterly basis as facilitated by Marcy Goldstein-Gelb of Mass COSH. This joint planning culminated in a half-day Environmental Justice Summit held at Tufts University which brought together youth, research staff and community partners for a half day meeting on May 9, 2007. This gathering was supplemented with a meeting of the Advisory Board of the Somerville Project as well.

Public Health Impacts

1. Establish a better understanding of the distribution of occupational health and safety problems among adults and youth in immigrant populations in Somerville, MA.
2. Create among the Teen Educators a reservoir of talent for leadership within the community on occupational health and safety issues that affect immigrant populations.
3. Assess the utility of a Cooperative business model for improving occupational health and safety among selected groups of workers.

Policy Impacts

1. Raise the consciousness of local policymakers with regards to the importance of occupational health and safety problems among immigrant populations and in addition to share information which may be useful in mitigating these problems.
2. Extract from the Somerville experience useful models for interventions which can be implemented in communities within the Boston metropolitan area.

Publications**Papers Delivered at National Conferences:**

1. David Mueller Gute, PhD, MPH, Raymond Hyatt, PhD, Alex Pirie, BA, Rose Goldman, MD, MPH, Marcy Goldstein-Gelb, Mark Woodin, Bindu Panikkar, MS. Methodological Techniques for the Assessment of Immigrant Occupational Health Problems: Somerville, Massachusetts. American Public Health Association Annual Meetings, Washington, DC 2007
2. Hyatt Raymond R., David Gute., Ismael Vasquez, Franklin Dalembert, Alex Pirie, Marcy Goldstein-Gelb, "Implementing a Teen Educator Developed Survey for Characterizing the Extent and Populations at Risk of Immigrant Occupational Health Problems." American Public Health Association Annual Meetings, Washington, DC 2007
3. Hyatt, Raymond R, David Gute, Helen Page, Alex Pirie, Rose Goldman, Anne Marie Desmarais, Mark Woodin. "Initiating the Transfer of Research Capability in Environmental Justice Within a Community-Based Participatory Research Project" Bringing in the IRB. American Public Health Association Annual Meeting, Boston 2006
Format:
Date:

Presentations

1. Monica Chianelli lectured at the University of Massachusetts at Dartmouth on February 28, 2007 with regards to the Co-op.
2. Monica Chianelli appeared and was interviewed on WUML on March 13, 2007.
3. Monica Chianelli and Heloisa Galvão lectured at the University of Massachusetts at Lowell on April 30, 2007.
4. Interview on Band News 99.3 MHz FM radio station in Brazil on November 14, 2007.

Contact Information

PI

David M. Gute
Associate Professor
Tufts University
Researcher
Department of Civil and Environmental Engineering
Anderson Hall- Room 113
Medford, Massachusetts 02155

Collaborator

Alex Pirie
Immigrant Services Provider Group
337 Somerville Avenue
C/O Somerville Community Corporation
Somerville, Massachusetts 02143

Collaborator

Rose Goldman, M.D.
Cambridge Health Alliance
Cambridge Hospital
1493 Cambridge Street (Macht 427)
Cambridge, Massachusetts 02139

Environmental Justice on Cheyenne River

Grant Number: 5 R25 ES013292-02

Funded By: NIEHS

Principal Investigator

Jeffrey A. Henderson, Black Hills Center for American Indian Health

Collaborators

Joseph Brings Plenty, Sr.
Chairman, Cheyenne River Sioux Tribe
Cheyenne River Sioux Tribe

Johnnye L. Lewis
Director, Community Environmental Health Program
University of New Mexico

Project Aims

The primary goal of this proposal is to foster among Cheyenne River Sioux tribal members an awareness and appreciation of prominent environmental health issues sufficient to drive an organized agenda of environmental health activities, planning, and policy, for the betterment of tribal members' health and the ecology of the reservation. This goal will be accomplished through the performance of several tightly linked Specific Aims:

- 1) To develop, using a social network-based lay health advisor model, a cadre of tribal members that will be able to educate and train others about prominent environmental health issues;
- 2) To conduct, utilizing these environmental health-trained tribal members, a broad survey of tribal members' knowledge, attitudes, and behaviors relating to a range of environmental health issues;
- 3) To implement an organized multi-media campaign intended to reach tribal members and broadcast environmental health information, keying particularly on findings from the survey; and
- 4) To promote, using participatory action research methods, the development of a tribal environmental health advisory board that will act in a liaison role with tribal government to inform environmental health policies.

Underlying these aims are explicit plans to leave in place a set of enhanced skills and understanding, a program of environmental health-related activities, and momentum toward an actively managed tribal environmental health policy agenda, which together will have a high likelihood of being sustained beyond this grant.

Project Summary

- A household, community-based survey designed to facilitate community education and outreach efforts was completed earlier this year. A total of 702 surveys with geocoding of the participants' locations and survey responses have been tele-formed through optical scanning at the University of Washington. These data were sent to our UNM partners who are linking the survey results to digitized images of the reservation, including water flow and source information, and 6 years of mercury assessment data from the tribe.
- We delivered a verbal presentation of our project to the recent American Public Health Association (APHA) 2007 Annual Meeting and Exposition in Washington, DC.
- Project Coordinator, Kim White Wolf, has been making district-level presentations on the project in recent months. There is a lot of interest on the part of community-members about our efforts and future plans.

- The partnership is planning a final round of community presentations and training sessions in early 2008. These sessions will focus on sustainability, including further development of a tribal environmental health advisory board, and extensions of our research efforts.
- During the past year, the activities for public education and awareness gained significant momentum. To this end three posters designed to increase community awareness about locally prominent environmental health issues were produced and widely distributed across the reservation. Topics covered by these posters include elevated mercury in surface waters, bioconcentration of mercury in fish species, and illegal dumping. Five related Public Service Announcements were also created with assistance of the project's media specialist, Deborah Begel (UNM); two have finished being broadcast, one is currently being aired on a local radio station on the reservation, and the others will be broadcast in the near future.
- Conference calls have been coordinated between BHCAIH and UNM at least once per month.
- The annual Grantees meeting at North Carolina was attended by Kim White Wolf, Brenda Veit, Miranda Cajero and Dr. Johnnye Lewis.
- The partnership jointly worked on a new pilot research proposal that will extend our present work by measuring the discrete body burden of mercury, arsenic, and heavy metals in CRST tribal members. This proposal was included in UNM's recent Clinical and Translational Science Center proposal.

Public Health Impacts

Improved characterization of a vulnerable population's health
Increased public awareness regarding mercury in the environment and food chain
Increased attention and awareness of water quality issues
Protection of children's health through a public awareness campaign to decrease fish consumption

Policy Impacts

Our work has informed a revision of previously adopted fish consumption guidelines. Specifically, our work has led to slightly more stringent guidelines intended to better protect the health of children. Our project has fostered greater cooperation between the Tribe's Environmental Protections and Tribal Health Departments. This has occurred through increased awareness and attention to environmental health-related issues, and joint participation in planning and programming activities. Our project is in the midst of working with the Tribe's Legal Department to draft legislation creating a new Tribal Environmental Health Advisory Board.

Publications

Righting a Century's Wrongs: Environmental Justice on the Cheyenne River Indian Reservation. The 2005 GWS George Wright Society Conference, Philadelphia PA.

Format: Abstract (accepted as a Poster)

Date: 10/13/04

Environmental justice on Cheyenne River. The 2005 Annual American Public Health Association Conference

Format: Abstract (accepted for verbal presentation)

Date: 04/15/05

A multi-media campaign to help mitigate environmental injustices on Cheyenne River. The 2007 Annual American Public Health Association Conference

Format: Abstract (accepted for verbal presentation)

Date: 11/06/07

Contact Information

PI

Jeffrey A. Henderson
President and CEO
Black Hills Center for American Indian Health
Community-Based Organization
701 St. Joseph St., Suite 204
Rapid City, South Dakota 57701

Collaborator

Joseph Brings Plenty, Sr.
Cheyenne River Sioux Tribe
P.O. Box 590
Eagle Butte, South Dakota 57625

Collaborator

Johnnye L. Lewis
University of New Mexico
University of New Mexico Health Sciences Center
Albuquerque, New Mexico

New York Restaurant Worker Health and Safety Project

Grant Number: I R25 OH008775-01

Funded By: NIOSH

Principal Investigator

Saru Jayaraman, Restaurant Opportunities Center of New York

Collaborators

Dr. Steve Markowitz

Director

Queens College Center for the Biology of Natural Systems

Ana Maria Archila

Co-Director

Make the Road NYC (Formerly known as Latin American Integration Center)

Dr. Alfred Astua

Doctor

Elmhurst Hospital

Project Aims

1. To create a sustainable Restaurant Safety & Health Task Force comprised of restaurant workers, employers, and the four partnering institutions to design and oversee the project research and intervention activities and to promote policy recommendations that arise from the project research and intervention activities;
2. To understand and describe, through the use of both quantitative and qualitative research methods, the nature, extent, constraints and context of work-related hazards, injuries and illnesses among restaurant workers, with a special emphasis on immigrant workers;
3. To design and test a set of improved ergonomic and work organizational conditions in a model cooperatively owned restaurant;
4. To develop a culturally and linguistically appropriate educational program - classes and curriculum - to enhance the ability of restaurant workers to prevent job-related injuries and illnesses;
5. To conduct a set of complementary activities, including worker educational programs, an employer technical assistance service, a Restaurant Industry Summit, and industry-specific health care and model workplace practice guidelines, which will arise as result of the knowledge and experience gained in the course of the proposed project.

Project Summary

The primary purpose of this project is to empower immigrant restaurant workers in New York City to have greater control over their occupational safety and health and to work with employers in the industry to understand the importance of these workers' occupational safety and health to their success and the success of the City's industry. This will be achieved through a collaborative process that will enhance the understanding of job hazards, injuries and illness in the restaurant industry; develop and test model practices in ergonomics and work organization in a new restaurant; create new leadership among restaurant workers; and conduct an annual Restaurant Industry Summit and other activities to promote public dialogue and to stimulate real policy options for change in the industry.

Public Health Impacts

This project will produce a comprehensive report to inform the scientific, public health, labor and industry communities about the nature and extent of occupational health problems among restaurant workers. This project will provide education to hundreds of restaurant workers that will allow them to avoid accident and injury in the workplace and empower them to speak up when their occupational safety and health rights are being violated. This project will provide lessons for public health practitioners and other restaurant employers based on ergonomic interventions at a laboratory restaurant, COLORS, a cooperatively-owned restaurant in New York City. This project will create guidelines for health practitioners regarding restaurant workers' specific occupational safety and health needs.

Policy Impacts

The report will produce specific policy recommendations to address the occupational safety and health needs of immigrant restaurant workers in New York City. The lessons from the ergonomic interventions will produce guidelines for restaurant owners that will be used for further education. The educational programs with restaurant workers will produce lessons that can be used to inform policy recommendations for restaurant worker occupational safety and health. The dissemination of the report will occur at the first annual Restaurant Industry on Occupational Safety and Health, which will bring workers, owners, unions, and the employer association to discuss policy interventions regarding restaurant workers' occupational safety and health.

Publications

Dining Out, Dining Healthy

Format: Self-Published

Date: 4-06

Restaurant Worker Train-the-Trainer Curriculum

Format: Self-Published

Date: 1-06

Restaurant Worker's Guide to Occupational Safety & Health

Format: Self-Published

Date: 8-06

NYC Restaurant Owner Guide

Format: Self-Published

Date: 2-06

Contact Information**PI**

Saru Jayaraman

Co-Director

Restaurant Opportunities Center of New York

Community-Based Organization

275 Seventh Ave., 17th Floor

New York, New York 10001

Collaborator

Dr. Steve Markowitz
Queens College Center for the Biology of Natural Systems
New York

Collaborator

Ana Maria Archila
Make the Road NYC (Formerly known as Latin American Integration Center)
49-06 Skillman Ave.
Woodside, New York 11377

Collaborator

Dr. Alfred Astua
Elmhurst Hospital
79-01 Broadway
Elmhurst, New York 11373

Community Health Intervention with Yakima Agricultural Workers

Grant Number: IR25OH008143-2

Funded By: EPA

Principal Investigator

Matthew Keifer, University of Washington

Collaborators

Vickie Ybarra
Director, Planning and Development
Yakima Valley Farm Workers Clinic

Ricardo Garcia
Executive Director, NCEC
Northwest Communities Education Center/Radio KDNA

Sandy Wells
Associate Professor, Director, Nursing Program
Heritage University

Project Aims

1. Develop structures and processes to facilitate the Hispanic community's involvement in the identification and prioritization of occupational and environmental stressors among farmworkers in Yakima Valley;
2. Create opportunities and mechanisms for this community to understand and actively participate in decision-making related to their occupational and environmental health;
3. Develop an issues driven action plan that focuses on the needs articulated by Hispanic agricultural workers;
4. Cultivate a cadre of new investigators with preliminary training related to the investigation and remediation of occupational and environmental health threats; and
5. Develop a sustainable partnership among the following entities: the Hispanic community in Yakima Valley, community organizations: Northwest Communities Education Center / KDNA and Heritage University, health care providers from the Yakima Valley Farm Workers Clinic (YVFWC), and scientists from the University of Washington.

Project Summary

El Proyecto Bienestar ("The Well-Being Project") is a collaborative research project that aims to identify and address occupational and environmental health issues that affect Yakima Valley agricultural workers. The agricultural community, represented through the Community Advisory Board (CAB), is at the center of the project. The CAB advises on all of El Proyecto's research and activities. A Core group, consisting of the four founding partner organizations administers the project.

El Proyecto Bienestar uses a Community Based Participatory Research (CBPR) framework. CBPR involves participation from both the community and researchers. The agricultural community of Yakima Valley has been involved in every step of the research process including creating the project's vision, designing surveys and interview guides, data collection and developing an action plan.

Over the past four years, data has been collected through community participation in interviews, community surveys and a Town Hall Meeting. The top four prioritized areas that the agricultural community has identified as top occupational and environmental health risks are: pesticides and chemicals, work related injuries, work related illnesses, and abusive workplace conditions.

El Proyecto Bienestar is now developing an action plan to address these issues that uses community outreach and leadership development, builds relationships and trust and works towards research that will benefit both the community and researchers.

Public Health Impacts

El Proyecto Bienestar has identified areas where the environmental and occupational health of agricultural workers are impacted and of great importance to this population: pesticides and chemicals, injuries, illnesses and workplace abuses. These areas should be further researched and interventions designed.

Policy Impacts

El Proyecto Bienestar has identified areas that need to be addressed in workplace health and safety of agricultural workers: pesticides and chemicals, injuries, illnesses and workplace abuses.

Publications

Joyce Tseng. An Impact Evaluation of a Farm Worker Environmental and Occupational Health Community-Based Participatory Research Course in the Yakima Valley, Washington: Seattle, WA.

Format: Thesis

Date: 6/07

Mariana Katzfey, Rubi Perez, Matthew Keifer. El Proyecto Bienestar:

Format: Presentation

Date: 8/15/07

Yolanda Sanchez. Seasonal Fluctuations of Asthma Hospitalizations in the Yakima Valley Community of Washington: Seattle, WA.

Format: Thesis

Date: 6/07

M Keifer, J Crowe, R Garcia, E Leber, V Ybarra, M Benavides, J Birge, M Carleson, E Hom, J Postma, J Ricking, M Salazar, Y Sanchez, G Sotelo, S Wells. Struggles and Successes in El Proyecto Bienestar, a community based participatory research project for environmental and occupational health. Washington, DC: APHA Conference.

Format: Presentation

Date: 11/6/06

Julie Postma. Power and Participation in El Proyecto Bienestar. Washington, DC: APHA Conference.

Format: Presentation

Date: 11/6/06

Vickie Ybarra, Julie Postma. El Proyecto Bienestar: An Authentic CBPR Partnership in the Yakima Valley. Partnership Perspectives. Winter 2007 vol IV(I): 34-43.

Format: Journal Article

Date: winter 2007

Jennifer Crowe. Partnering with Local Universities to Increase Farmworker Access to Care: Two Case Studies. Farmworker Health Services Inc. Sept 2006, vol 6(I): 4-5.

Format: article

Date: 9/06

Vickie Ybarra, Julie Postma. El Proyecto Bienestar: An Authentic CBPR Partnership in the Yakima Valley around Environmental Justice. Minneapolis, MN: Community-Campus Partnerships for Health's 9th Conference: Walking the Talk: Achieving the Promise of Authentic Partnerships.

Format: Presentation/workshop

Date: 6/3/06

Liz Hom. Analysis of environmental and occupational health concerns in key informant interviews with Community Advisory Board (CAB) of El Proyecto Bienestar (The Well-Being Project): Seattle, WA.

Format: Thesis

Date: 6/06

Maria Benavides, Jennifer Crowe, Cindy Daniel, Maria Padilla, Victor Ruiz. El Proyecto Bienestar: A Community based Participatory Research Project. Portland, OR: Western Migrant Stream Forum.

Format: Presentation

Date: 1/30/06

Julie Postma. Consensus as a decision making model in El Proyecto Bienestar. Portland, OR: Western Migrant Stream Forum

Format: Poster

Date: 1/29/06

Jennifer Crowe. Key Informant Perceptions of Environmental and Occupational Risks for Agricultural Workers in Yakima Valley, Washington as a part of El Proyecto Bienestar. Seattle, WA.

Format: Thesis

Date: 6/05

Contact Information

PI

Matthew Keifer

Associate Professor

University of Washington

Researcher

Department of Environmental and Occupational Health Sciences

Box 357234

Seattle, Washington 98195-7234

Collaborator

Vickie Ybarra

Yakima Valley Farm Workers Clinic

402 N. 4th Street

Suite 202

Yakima, Washington 98901

Collaborator

Ricardo Garcia

Northwest Communities Education Center/Radio KDNA

P.O. Box 800

Granger, Washington 98932

Collaborator

Sandy Wells

Heritage University

3240 Fort Road

Toppenish, Washington 98948

Healthy Homes and Community for High Point Families

Grant Number: IR25ES012584-01

Funded By: NIEHS

Principal Investigator

James Krieger, Public Health Seattle and King County

Collaborators

Denise Tung Sharify

Neighborhood House

Kathleen Perez

Puget Sound Neighborhood Health Centers

Project Aims

The primary aim of our project is to implement and evaluate multi-level strategies at High Point, to improve attributes of the built and social environments that promote health.

High Point is an ethnically diverse public housing site located in West Seattle, Washington. The Old High Point consisted of 716 sixty-year-old housing units in varying states of deterioration laid out in a suburban-style street plan with cul-de-sacs. It is being redeveloped as a health-promoting, mixed-income, sustainable community with 1600 new housing units. Principles of the “New Urbanism” have guided the redevelopment process. Features of the design that are intended to contribute to a healthy community include development of open spaces and trails, wider sidewalks, separation of sidewalks from motorized vehicles, traffic calming structures, grid street layout, creation of mini-parks and gathering spaces to promote social interaction and outdoor activity and to serve as walking destinations, community gardens, access to transit, greenbelt and wetland sustenance, watershed protection, and building design and orientation to promote social interaction, defensible spaces, and physical safety (e.g. sidewalk-facing porches, windows facing streets to allow observation).

The multi-level strategies include building community and increasing social capital, supporting resident leadership development, enhancing the social environment to promote healthy resident activities and social support, organizing the community to promote institutional and government policy implementation and systems change to promote a healthier community, making improvements to the built environment to enhance walkability, increasing community awareness of environmental issues, building new housing asthma-friendly housing for people with asthma, improving clinical asthma care, and providing peer-based in-home education regarding healthy indoor environments.

In addition to NIEHS funding, Neighborhood House in partnership with Seattle Housing Authority, University of Washington and Public Health Seattle and King County, received a \$850,000 grant from Department of Housing and Urban Development-Healthy Homes and Lead Hazard Control Program. The grant is supporting the construction of 35 specially designed “Breathe Easy Homes” that address the needs of individuals and families with asthma. We are using a longitudinal cohort design that evaluate the effectiveness of these homes in reducing asthma morbidity.

Both NIEHS and HUD grants operated under the umbrella of High Point Healthy Homes and Community Project.

Project Summary

We built community capacity to improve health by addressing determinants of health in the built and social environments of a public housing community.

Project activities included:

1. Established a partnership of residents, community based agencies, the public housing agency, the local public health department, other local government agencies and academics that worked identified and addressed environmental justice and health issues affecting residents of the old High Point. Community residents are active participants with decision making power, involved in implementation of projects and interpretation and dissemination of evaluation findings.
2. Developed approaches to address the challenges of working in a multicultural and multilingual neighborhood such as bilingual/bicultural staffing, interpretation at meetings and community activities, translated materials, use of community assessment methods such as photovoice that are easily used by a diversity of community members and community building activities to engage residents.
3. Developed and evaluated a walking group. Over 80 residents participated in the High Point Walking Club between Spring 2006 to present.
4. Developed an intergenerational and cross cultural team of community members that reached out across linguistic and cultural differences to engage the entire community in improving environmental quality and reducing asthma risk factors. Adult and youth team members developed leadership skills and some are now leaders in the newly formed High Point Neighborhood Association. Activities included:
 - A. Participated in trainings on leadership, EJ and asthma prevention and intervention, conducting community mapping and walking audit exercises, developing a Healthy Homes booklet in four languages and a Walking Map.
 - B. Increased awareness of environmental issues such as soil contamination with heavy metals and watershed protection
 - C. Provided culturally and linguistically appropriate peer education and in-home assistance to address indoor environmental quality issues to over 50 households. Team members visited households offered advice and assistance in four languages (English, Vietnamese, Cambodian and Somali) and gave households resources (green cleaning kits, multilingual Healthy Homes booklet, outlet plugs) to maintain healthier homes.
 - D. Organized the community to address pedestrian safety issues to make High Point a safer and more walkable community. Team members led advocacy efforts directed at Seattle Department of Transportation, City Council members, and Police Department.
 - E. Implemented measures to start a Walking Club in the community. The team produced a walking map and a kiosk to encourage walking. It led community residents in clearing a staircase that was overgrown and dangerous so residents could safely access walking trails.
5. Created new patient assessment and education protocols at the High Point Community Clinic to address asthma-related health concerns such as presence of asthma triggers in the home.
6. Assessed the impact of the High Point redevelopment on the quality of the built environment, physical activity and health using a repeated-measures cross sectional and longitudinal surveys. We tailored data collection methods to address the multilingual needs of the community. We collected baseline data prior to redevelopment in 2005 and are implementing the first follow-up survey in 2008 with CDC funding. Baseline data showed that about half of residents perceived that traffic, unsafe street crossings and lack of attractive natural sites were features of their community. Research on determinants of walking has shown that these factors are significantly correlated with low levels of walking.
7. Partnered with the Breathe Easy Home Demonstration Project that designed and funded construction of 35 new homes with special features to address the needs of children with asthma. Provided 80 people with

supplies such as a vacuum cleaner, allergen pillow and mattress covers, doormat, green cleaning kit and translated materials to reduce indoor asthma triggers.

8. Mobilized residents and community based agencies to understand, identify and address environmental justice and health issues.

Public Health Impacts

The Breathe Easy Homes decreased the child's asthma symptom days and urgent clinical care visits while increasing the child's caretaker quality of life. Asthma triggers were also greatly reduced particularly mold.

Specifically, before and after moving into the new home, symptom-free days in past two weeks increased from 7.1 to 2.4 (change = 5.3, $p = 0.004$), caretakers quality of life increased from 5.0 to 5.8 (change = 0.8, $p = 0.002$), proportion of children with urgent clinical care use in past 3 months decreased from 60.0% to 20.6% (change = -39.4%, $p = 0.002$) and asthma trigger exposure (average number of triggers) decreased from 1.4 to 0.03 (change = -1.37, $p < 0.000$). The proportion of participants in the walking groups ($n = 60$ in evaluation subset) meeting CDC recommended levels of moderate or vigorous physical activity increased from 59% to 73% ($p = 0.103$) and the mean minutes walked per day increased from 64 to 108 ($p < 0.001$). We will have results from the community survey in 2009 that will describe the impact on physical activity and on health of the High Point redevelopment effort.

Policy Impacts

Implementation of pedestrian safety enhancements including restricted street parking, increased pedestrian crossing time at traffic signals and moving school bus stop. Incorporation of healthy homes and communities principles and features into public housing sites. Partners are working with the Seattle Housing Authority on the redevelopment of another large public housing site as a healthy community based on lessons learned from High Point. They are exploring the development of a healthy housing/health communities checklist the Housing Authority can use for planning future development work. Housing Authority will build an additional 25 Breathe Easy units in the second phase of the High Point redevelopment, based on success of the first 35 units. The Housing Authority will assume responsibility for locating residents for these units and maintaining the units.

Publications

Contact Information

PI

James Krieger, MD
Public Health Seattle and King County
Researcher
401 5th Ave, Suite 1300
Seattle, Washington 98104

Collaborator

Denise Tung Sharify
Neighborhood House
905 Spruce Street, Suite 200
Seattle, Washington 98104

Collaborator

Kathleen Perez
Puget Sound Neighborhood Health Centers
905 Spruce Street, Suite 300
Seattle, Washington 98104

Community Collaborations for Farmworker Health and Safety

Grant Number: 5R25 OH008144-03

Funded By: NIOSH

Principal Investigator

John J. May, Mary Imogene Bassett Hospital

Collaborators

Anne Nolon, MPH
Director
Hudson River Community Health

Barbara Ginley, MPH
Exec. Director
Maine Migrant Health Program

Project Aims

The project aims to accomplish two ultimate goals:

- Build an effective coalition of primary care practitioners (PCPs), a community migrant health program (MHP) and a research team: the Northeast Center for Agricultural Health (NEC), at two separate sites in the Northeast.
- Develop and test a process through which these coalitions can generate effective interventions to reduce occupational injury and illness in the migrant and seasonal farmworker community.

To do this the coalition must complete four basic goals:

- Solicit the participation of the migrant community in assembling a team of migrant and seasonal farmworkers, employers, health professionals and other stakeholders who share the common goal of reducing occupational injury and illness at each of two community migrant health center sites.
- Guide these teams in establishing injury/illness priorities and identifying prominent risk factors through the use of existing data on the community's occupational injury/illness patterns.
- Design and test interventions intended to reduce illness / injury under the guidance of the community team. Evaluate the impact of each intervention upon migrant worker injury and illness.
- Assess the results of these evaluations with the community team and assist community organizations to disseminate and institutionalize those interventions found to be effective.

Project Summary

The two projects have progressed into dissemination at this point and we are working on sustainability plans for both.

In New York, we worked with Hudson River Healthcare to oversee a project in which a team of farmworkers and farm owners in a vegetable producing region of NY addressed the problem of eye irritation secondary to the very fine black soil in the region. Several different types of protective eyewear were selected by the workers and

subsequently systematically tested in field trials. Workers were also provided ready access to eyewash solution and were given training on eye protection, irritation and infection at the beginning of the season. Low-literacy Spanish pocket information cards were tested, modified and then distributed to workers. There was good support of this effort from the limited number of owners on the work team. The evaluation involved comparison of workers on intervention and control farms. It showed statistically significant reductions in eye irritation and several eye symptoms. In the final year these interventions were made widely available to all workers in the region and the project materials were disseminated to migrant agencies in Oneida, NY where there is similar fine black soil and related eye irritation. The local migrant clinic in Orange County will sustain the eye intervention in the future, possibly with the help of the local Lions Club.

In Maine, we worked with the Maine Migrant Health Program and a team of blueberry rakers and farm owners. The team selected musculoskeletal problems related to raking of blueberries as their major occupational health priority. They selected rake design as the mode of interaction. In the second year's harvest, a systematic trial of several potential intervention designs resulted in an extended handle design on both 70 & 80 tine rakes. In the following harvest, these were systematically compared to the traditional short handle rake in a systematic trial involving workers who tried a different design each day for five days. The extended handle rakes were greatly preferred by workers, were associated with less pain, required less force (subjectively) and were associated with increased productivity. In last season's harvest, extended handle kits were made up by two different manufacturers and were distributed at meetings in various camps early in the season. At each meeting, the goals and results for the project were reviewed with workers. A staff member was available with a drill to install any handles that worker chose to buy. The supply of handles was completely exhausted. Maine's major rake manufacturer was involved in the work team and is a firm supported of this intervention. Extended handle kits are now prominently featured in his catalogues. With support from the Maine Dept. of Labor, an instruction video (in Spanish) is now in preparation which will cover raking ergonomics and extended rake handles as well as heat and sun exposure, insect bites and other health concerns.

A grant for a similar three year undertaking in northern Maine broccoli production is awaiting review at the NIH.

Public Health Impacts

A new design for the blueberry rake is being widely disseminated and accepted by workers, owners and manufacturers throughout Maine. This has been associated with less force and less pain. It has been found to be more productive. It is now being promoted by manufacturers, extension agents and individual owners. This community-based strategy has been adopted by Maine Migrant Health to address additional occupational and non-occupational (diabetes) problems in their population. A grant to undertake a similar project with Maine broccoli workers has been submitted. MMHP has already recruited a work team for this project. A teaching video in Spanish and English that deals with all of the most common occupational hazards in blueberry harvesting has been designed by the work team and is now in production. This will be widely available at the beginning of next years harvest season. A successful eye irritation intervention has been devised and shown to be effective on Orange County vegetable operations. This will be sustained by the migrant health clinic, possibly with the help of the Lions Club. Materials from this project have been disseminated to a migrant setting elsewhere in NY. Low literacy Spanish and English pocket cards have been developed and tested for effective communication of eye protection advice. These have been disseminated in both Orange county and Oneida County. Members of the Orange County work team - including the farm owners have expressed a desire to undertake additional intervention projects.

Policy Impacts

This community-based methodology is now recognized at both sites by workers, farm owners and agencies as being effective and desirable.

Publications

Identifying the Health Needs of Migrant Farmworkers: A Community Based Approach. Hawkes L, May J, Paap K, Santiago B, Ginley B, Augustine M, Russet C.

in press J. Community Health

Format:

Date:

J May, L Hawkes, A Jones, P Burdick*, B Ginley, B Santiago, M Rowland

Evaluation of a Community-Based Effort to Reduce Blueberry Harvesting Injury. submitted Am J Indust Medicine

Format:

Date:

Contact Information**PI**

John J. May, MD

Director

Mary Imogene Bassett Hospital

Researcher

NY Center for Agricultural Medicine and Health

1 Atwell Road

Cooperstown, New York 13326

Collaborator

Anne Nolon, MPH

Hudson River Community Health

1037 Main Street

Peekskill, New York 10566

Collaborator

Barbara Ginley, MPH

Maine Migrant Health Program

PO Box 405

Augusta, Maine 04332

Environmental Health and Justice in Norton Sound, Alaska

Grant Number: ES014308

Funded By: NIEHS

Principal Investigator

Pamela K. Miller, Alaska Community Action on Toxics

Collaborators

Vi Waghiyi

Coordinator, Environmental Health and Justice Project for Norton Sound, Alaska
Alaska Community Action on Toxics

Dr. David O. Carpenter

Professor and Director

State University of New York School of Public Health

Kevin Zweifel

Director, Environmental Health

Norton Sound Health Corporation

Project Aims

With this project, we focus our work on known and previously unexamined contaminants that may be important factors affecting the environmental health of Alaska Native communities in the Norton Sound region, including Brevig Mission, Diomede, Elim, Gambell, Golovin, Koyuk, Saint Michael, Savoonga, Shaktoolik, Shismaref, Stebbins, Teller, Unalakleet, Wales and White Mountain. The Nome Eskimo Community and the villages of Council, King Island, Solomon and Mary's Igloo are also included in the scope of this project. (The governing councils for these four villages and the Nome Eskimo Community are based in Nome.) The purpose of this project is to work in partnership with the fifteen communities of Norton Sound and the five village councils based in Nome to find effective means to limit the release and mitigate the human health effects of environmental contaminants.

The project has these specific aims:

1. Work with village leaders and regional health care administrators to increase the capacity of the health care system in Norton Sound to diagnose and treat human health problems associated with environmental contaminants.
2. Through the development of an environmental health care curriculum and sponsorship of a series of seminars on environmental health problems, provide forums for health care professionals in the Norton Sound region (including village health aides) to discuss diagnosis and effective treatment of the human health effects of environmental contaminants.
3. Work with regional health care professionals and village leaders to design protocols for conducting research on contaminants that may be important factors affecting the health of the communities so that Norton Sound residents can be fully engaged in health studies planned for the region.
4. Sponsor teleconferences and meetings to foster communications among the Norton Sound villages and with other communities throughout the global Arctic in order to enhance capacity to reduce the impacts of globally transmitted contaminants and the effects of global warming on the transport of contaminants to the health and well being of Arctic people.
5. Describe the contaminants that exist at FUDS on St. Lawrence Island to better inform ongoing remediation efforts there and to provide a checklist for what contaminants may be expected at other FUDS in the Norton Sound region.

6. Describe other FUDS in the Norton Sound region and collect data regarding the nature and extent of contaminants that were left at these sites.
7. Collaborate with leaders of villages in the Norton Sound region to develop strategies for securing effective state and federal action to address FUDS near their communities and to get these sites remediated to the highest levels possible.
8. Develop training programs in partnership with Norton Sound communities to achieve effective community oversight of state and federal programs designed to assess and remediate FUDS.
9. Assist Norton Sound communities in securing the training and tools needed to establish independent programs operated by the villages to monitor contaminants in their communities.
10. Provide a model for a regional strategy to address impacts of environmental contaminants that can be applied throughout rural Alaska where subsistence economies are predominant.

Project Summary

Following extensive document research and review, the project team produced a 46-page report titled: Formerly Used Defense (FUD) Sites in the Norton Sound Region: Location, History of Use, Contaminants Present, and Status of Clean-up Efforts. The report synthesizes information concerning the history of military occupation, site locations, descriptions, contaminants, sampling information, threats to environmental quality and health, and status of clean-up of over 40 FUD sites in proximity to 16 Alaska Native villages in the Norton Sound region. Researchers obtained documents through Freedom of Information Act and Alaska Public Records Act requests (including requests to U.S. Army Corps of Engineers, Environmental Protection Agency, U.S. Air Force, and the Alaska Department of Environmental Conservation), indexed the documents, and reviewed more than 15,000 pages of agency correspondence, site histories, comments, scientific articles, Preliminary Site Assessments, Remedial Investigation Reports, Feasibility Studies, and Records of Decision. We distributed reports to tribal leaders and used the information to develop plans and priorities for our environmental field research in 2006 and 2007.

In the summer of 2006, we coordinated a field research program at five locations in proximity to formerly used defense sites within the Norton Sound region, including Northeast Cape and Gambell on St. Lawrence Island, Elim, Wales, and Unalakleet. Researchers with Alaska Community Action on Toxics, State University of New York, St. Lawrence University, and Clarkson University collected surface and groundwater water samples, indoor and outdoor ambient air samples, soil samples, sediment core samples, and plant samples. Local tribal environmental staff participated in the design and implementation of the sampling program and received training in environmental field research sampling methods. Prior to the field sampling program, tribal council members and other community leaders provided information to the research team to determine areas of concern about environmental and human health.

The field research team collected a total of 164 environmental samples, including 6 high-volume passive air samples (part of the Global Atmospheric Passive Sampling (GAPS) Study), (8) 6-liter Summa canister air samples, 8 sediment core samples, 45 plant samples, 27 soil/sediment samples, and 70 surface and groundwater samples. The research team is working in collaboration with the Global Atmospheric Passive Sampling (GAPS) Study coordinated by Environment Canada. The GAPS study is designed to examine the worldwide distribution of range of persistent organic pollutants in air, including organochlorine pesticides, polybrominated diphenyl ethers (PBDEs), PCBs, polychlorinated naphthalenes, and perfluoroalkyl sulfonamides (PFAS)). The research team also used Summa Canisters to test for the presence of volatile organic compounds in indoor air samples or in other places that people are likely to be exposed through inhalation. The Air Toxics Ltd. Laboratory performed analysis of the Summa Canister samples using a modified EPA Method TO-15 using GC/MS in the full scan mode. Water samples were analyzed by Northeast Analytical Labs for semi-volatile organic chemicals (SVOCs), volatile organic chemicals (VOCs), and metals using EPA methods 8270, 8260, and RCRA metals analysis. The Institute for Health and Environment at the University at Albany (SUNY) analyzed the sediment cores in sections at 3, 6, 9, 12, and 15 cm depth for PCBs (congener-specific analysis), hexachlorobenzene (HCB), mirex, and DDE. The Department of Earth Sciences at SUNY Albany is analyzing the core sections for trace metals and the University of Georgia, Skidaway Institute of Marine Sciences is conducting the Cs137 analysis of the core sections.

Elders and other knowledgeable individuals informed the research team concerning traditional and local knowledge of contamination sources, environmental and health matters relative to the military sites. We conducted community meetings in the villages of Elim, Unalakleet, Wales, Gambell, and Savoonga to engage and inform people about the environmental research work.

In the summer of 2007, the research team returned to five Norton Sound tribal villages to conduct environmental sampling. We conducted water quality monitoring, collected fish samples, and completed geophysical surveys around military sites in the villages of Savoonga, Gambell, Wales, Elim, and Unalakleet. For our research at Northeast Cape, a formerly-used military site (on St. Lawrence Island), we collaborated with scientists who have been investigating the long-term impacts of the Exxon Valdez oil spill using newly developed research methods-- semi-permeable membrane devices that simulate biological membranes from which scientists can assess which contaminants are present and determine their toxicity to fish and other organisms. At Northeast Cape, the research team placed biological membranes in the Suqi River to determine the reasons that fish have not returned thirty years after the military abandoned the site. We also are collaborating with scientists at University Alaska Anchorage, led by Dr. Frank von Hippel, to investigate the presence of endocrine-disrupting chemicals and their effects on fish with implications for human health.

During the 2007 sampling trip, ACAT staff also organized community meetings in each of the five villages to share results of our research conducted in 2006, as well as observable information obtained from the 2007 field sampling. We listened to concerns about environmental health relative to military contamination. The military sites at each of the five villages are complex and there are different concerns at each village. The 2007 sampling addresses contaminated sediments in water bodies and persistent organic pollutants detected in air samples. We are also searching for endocrine disrupting chemicals in fish. (Laboratory analyses of the July 2007 samples taken are not finished.) At the July meeting, we also met with the village leadership to discuss plans for future research and advocacy work to find solutions to the problems of military contamination and the effects of persistent organic pollutants carried to the Arctic through oceanic and atmospheric currents.

Sediment cores and edible plants were used to differentiate globally deposited contaminants contributed from formerly used defense sites (FUDS) located at five Norton Sound communities and two remote sites on St. Lawrence Island (SLI), Alaska. In order to assess the relative contributions of contaminants at the Northeast Cape FUDS on St. Lawrence Island and at three Norton Sound mainland community FUDS, sediment core samples and plant samples were collected during the summers of 2002, 2006 and 2007. Core samples were sectioned at 2.5 to 3 cm intervals and analyzed for congener specific PCBs, hexachlorobenzene (HCB), mirex, DDE and mercury. Differences in the total and congener distributions of PCBs, mirex and mercury in sediment cores and in plants collected from the two St. Lawrence Island (SLI) FUDS indicate the majority of the contaminants impacting these sites were directly related to releases at the time the FUDS were occupied by the military. Contaminants in the sediments and plants at the SLI sites are elevated relative to two SLI remote sites and three mainland Alaska, Norton Sound FUDS communities. The concentrations and distribution of the total PCB concentrations and congener specific differences in sediments and plants clearly differentiate locally derived from globally transported contaminants.

Community-Based Health Assessment on St. Lawrence Island. ACAT has been working to build the capacity of the people of St. Lawrence Island to address multiple environmental risks that impact the health of the residents. To accomplish this goal, ACAT is conducting a detailed community-based health survey in the rural Native villages of Savoonga and Gambell to determine health conditions that might be linked with environmental exposures to harmful chemicals associated with the formerly used military sites or other sources. Residents decided to administer their own environmental health questionnaire, because state and federal agencies avoid investigating their growing concerns about public health conditions in the villages. ACAT assisted the villagers in creating a scientific valid research questionnaire and establishing a research protocol that will stand up to scrutiny. ACAT sponsors and supervises the survey which is conducted by residents of the two villages.

During the winter (September 2006 through May 2007), the ACAT community health researchers who live on St. Lawrence Island traveled by foot, snow machine/all-terrain vehicle to interview people in their homes. Winter weather on this remote island in the northern Bering Sea presents darkness, often blizzard conditions, with high winds and extremely cold temperatures. During the summer, people disperse from the villages to their subsistence

camps for traditional food harvesting and preparation (berries, greens, fish, marine mammals, seabird eggs), making it more difficult to conduct interviews. Nevertheless, the team of community health researchers completed 429 health surveys of people living in the two St. Lawrence Island villages.

Through our preliminary analysis of the data from the health surveys, we are discerning patterns of disease that appear to correlate with proximity to the military sites. Community health researchers noted unusual reproductive health problems, specifically premature births, low birth weight babies, and still births. They also documented that endocrine disorders are prevalent in the villages of Savoonga and Gambell, including thyroid dysfunction and diabetes. Illnesses of the respiratory system and heart are also markedly high. Village leaders and health aides on St. Lawrence Island report that people are dying of cancer, mothers are suffering miscarriages, babies are born with disabilities, youth and adults suffer from health problems of the immune, neurological, endocrine, and reproductive systems' health problems that were rare before the military came to the Island.

The community researchers reported that people are participating enthusiastically in this project because they are interested to learn about the findings and implications of the research. People are alarmed about the high rates of cancer and other illnesses. They want to work with ACAT to develop additional preventative measures, including the traditional and integrative measures of prevention and treatment. In addition, the analyses will contribute significantly to the growing body of scientific environmental health literature on a national and international level.

In order to fulfill the specific aim of increasing the capacity of the health care system in Norton Sound to diagnose and treat human health problems associated with environmental contaminants, project staff organized environmental health seminars presented by recognized experts for the medical staff and community health aides that serve the 15 communities of the region. Topics included children's environmental health (Dr. Ruth Etzel, Research Director, Southcentral Foundation and Alaska Native Medical Center), Diabetes and Environmental factors (Dr. David Carpenter, Director, Institute for Health and the Environment, University at Albany, SUNY), and Special Vulnerabilities in Pregnancy and Early Development Concerning Environmental Exposures (Aimee Boulanger, Program Director, Institute for Children's Environmental Health). In addition, staff organized statewide teleconference seminars for health care professionals with participation of Norton Sound community health aides, public health nurses, and physicians, including:

1. Diabetes: A Complex Disease and the Contributing Factors of Environmental Exposure.
2. Learning and Developmental Disabilities and Neurotoxic Chemicals: Emerging Science and a Path Towards Prevention.
3. Making a Link: Investigating Reproductive Health in the Environment, Addressing Fertility Birth Outcomes and Birth Defects in Alaska.
4. A Chemical of Growing Concern: Perchlorate. Military Production and Use, Health Effects, and Implications for Alaska.
5. Global Warming and the Arctic: Profound Implications for Public Health of Northern Peoples.
6. Effects of Warming in Communities of the North, Human Rights, and Actions to Prevent Future Harm.
7. Protecting Health and the Environment in Alaska: The Global Treaty on Persistent Chemicals and Its Relevance to People of the North
8. From the National to the Local - Perspectives on Wild Alaska Fish and the Contaminants within Them.
9. Breast Cancer and the Environment - An Update on the Latest Science and Working Together to Achieve Policies of Prevention.
10. Contaminants and Wildlife in Alaska: What Animals Can Tell Us About Environmental Health.
11. Biomonitoring and the Health Implications of Chemical Contaminants in Our Bodies.
12. Polybrominated Diphenyl Ethers (PBDEs) and Implications for Environmental and Human Health in the Arctic.

The environmental sampling program is designed to accomplish the following: 1) determine pathways of potential human exposure including air, vulnerable water sources, and plants; 2) distinguish atmospherically-derived sources of contaminants from those generated from local formerly used defense sites. To accomplish this, the research team is analyzing water and air samples, as well as examining temporal and spatial variations in the sediment core and plant samples and congener-specific profiles. Preliminary analysis shows that the more heavily-chlorinated PCB congeners tend to be concentrated in the vicinity of military sites such as Northeast Cape and areas more distant

from military sites have a greater presence of the more lightly chlorinated congeners that reflect atmospheric deposition. The presence of mirex, used as a flame-retardant chemical by the military, was found in environmental samples (sediment and plant) from Northeast Cape, but not in the vicinity of other FUD sites examined during the 2006 field sampling program. Concentrations of total PCBs in plant samples from Northeast Cape exceeded those at the other sites by 4 orders of magnitude. We also found that rinsing plants (used as traditional foods) decreased the levels of contaminants significantly (up to 50% reduction in total PCB concentrations), thus providing information important to protect public health.

Public Health Impacts

The research team provided critical and independent information concerning the safety of drinking water sources, demonstrating that chemical contaminants within the Suqi River at Northeast Cape on St. Lawrence Island posed a health hazard to the people of the island who have relied on the river as a drinking water source. Water quality analyses of surface and groundwater sources of drinking water at the villages of Elim, Wales, and Unalakleet showed that military contamination had not affected the drinking water sources. Analyses of plants from Northeast Cape (NEC) used as traditional foods (berries and greens) showed elevated levels of military-derived PCBs. Rinsing the plants decreased the levels of contaminants significantly (up to 50% reduction in total PCB concentrations), thus providing information important to protect public health. This information was provided to the community so that people would not harvest plants in the vicinity of Northeast Cape. Relative comparison of the sediment cores collected from the Northeast Cape (NEC) to the two remote locations sampled on St. Lawrence Island and the three Norton Sound community locations, demonstrated that the PCB, hexachlorobenzene, DDE and mirex concentrations are significantly elevated and attributable to military activity at the NEC FUDS. Based on the relative concentrations of contaminants in the sediment cores, it is likely the military occupancy contributed an eightfold increase in the total PCBs, a four to six-fold increase in the mirex concentrations and a six to eightfold increase in the mercury concentrations. The elevated concentrations of contaminants in the upper core segments also suggest that contaminants are being remobilized as a consequence of remediation. The elevated concentrations of PCBs in the NEC and Gambell plant samples relative to the concentrations at the three mainland Norton Sound FUDS provides further evidence that the source of PCBs, HCB, mirex, mercury and DDE are directly related to the military presence. The plant data also indicate contaminants are being remobilized as a consequence of site remediation. In order to fulfill the specific aim of increasing the capacity of the health care system in Norton Sound to diagnose and treat human health problems associated with environmental contaminants, project staff organized environmental health seminars presented by recognized experts for the medical staff and community health aides that serve the 15 communities of the region. The research team is collaborating with health care providers to develop an environmental health curriculum for the community health aides and other medical staff that serve the fifteen villages of the Norton Sound region.

Policy Impacts

Independent scientific data obtained through this project provides communities in the Norton Sound with information necessary to participate fully in decisions about the cleanup of formerly used defense sites. Specifically, data from the project are being used in decisions by the tribes, state, and federal agencies about the cleanup of the formerly used defense sites under provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Data are being reviewed by EPA in support of a decision to list the Northeast Cape site under the National Priorities List (NPL or Superfund sites) of the most polluted sites in the country. Research supports information about the nature and extent of contamination and decisions by tribes, state and federal agencies to establish priorities for cleanup of formerly used defense sites. The project provides tribes, state, and federal agencies with information necessary to distinguish local from global sources of PCBs and other chemical contaminants. This information directly influences policies concerning military site cleanup, as well as policies to reduce and eliminate global sources of contaminants that adversely affect Arctic environmental and human health. The research team provided delegates and scientists of the Persistent Organic Pollutants (POPs) Review Committee of the Stockholm Convention on Persistent Organic Pollutants with accurate science-based information about POPs in the Arctic, including those derived from long-range transport and from local sources of military contamination. Through our research and technical comments, we are working with colleagues from the International POPs Elimination Network (IPEN) to ensure the listing of additional pesticides and industrial chemicals under provisions of the Stockholm Convention.

Publications

Carpenter, D.O., A.P. DeCaprio, D. O'Hehir, F. Akhtar, G. Johnson, R. Scudato, L. Apatiki, J. Kava, J. Gologergen, P.K. Miller, L. Eckstein. 2005. Polychlorinated Biphenyls in Serum of the Siberian Yupik People from St. Lawrence Island, Alaska. *International Journal of Circumpolar Health* 64(4):322-335.

Format: Publication

Date: 2005

Formerly Used Defense Sites in the Norton Sound Region: Location, History of Use, Contaminants Present, and Status of Cleanup Efforts (July 2006)

Format: Publication

Date: July 2006

Military's Pollution A Lingering War Legacy, Anchorage Daily News, August 26 2007.

Format: Publication

Date: August 2007

Contact Information**PI**

Pamela K. Miller
Executive Director
Alaska Community Action on Toxics
Community-Based Organization
505 West Northern Lights, Suite 205
Anchorage, Alaska 99503

Collaborator

Vi Waghiyi
Alaska Community Action on Toxics
505 West Northern Lights, Suite 205
Anchorage, Alaska 99503

Collaborator

Dr. David O. Carpenter
State University of New York School of Public Health
Institute for Health and the Environment
School of Public Health, University at Albany, One University Place, B Wing, Room B242
Rensselaer, New York 12144

Collaborator

Kevin Zweifel
Norton Sound Health Corporation
P.O. Box 966
Nome, Alaska 99762

Building Food Justice in East New York

Grant Number: ES014315

Funded By: NIEHS

Principal Investigator

Kimberly Beth Morland, Mount Sinai School of Medicine

Collaborators

Salima Jones-Daley
ENY Food Co-op Director
East New York Food Co-op

Richard Bordowitz
Assistant Clinical Professor
Mount Sinai School of Medicine

Project Aims

We propose conducting a series of projects that will address food justice for East New York. It is through the community outreach activities that the food co-op will be developed, community capacity activities will be formed and communication will transpire. We plan for these components of our model to result in the following outputs: a sustainable food co-op; expanded community capacity around food justice and developed products to communicate research process and findings. We believe these components will result in the goal of increased food justice for the ENY community.

The initiative will consist of projects to characterize the extent of the inequitable healthy food access in ENY; introduce a community driven solution (a sustainable food co-op, health education and screening); and the evaluation of the process and outcomes associated with these interventions and their effect on ENY residents. We will:

- Develop a community advisory board that will expand the members of the ENY-FPC as well as develop sub-committees to actively guide the assessment, implementation, communication and evaluation of the project.
- Conduct a community assessment where we will measure: (a) the local food environment in terms of food store/restaurant location, cost and quality of foods; and (b) the attitudes, perceptions, and knowledge of ENY residents with regard to nutrition and health as well as measure dietary intake.
- Implement (a) the opening of a food co-op in ENY; (b) nutritional and health information classes for ENY residents (including cooking and other nutrition classes); (c) the health screening and services module; (d) training program for medical students and college students on how to collaborate with community organizations; and (e) plans to incorporate the local government to instigate new policies related to food equity for minority neighborhoods.
- Develop and implement a communication and dissemination plan for the food co-op members, ENY residents, health care providers, researchers and advisory board members such that bi-directional communication between groups offers a collaborative partnership for the initiative.
- Evaluate the process and outcomes associated with the implementation of the interventions including: (a) communication; (b) capacity building of community members, researchers and service providers; (c) changes in individuals attitudes, perceptions, knowledge the relationship between nutrition and health; (d) changes in ENY

residents food purchases and diet; (e) impact on students of training program; and (f) impact project has on local, state and regional policy development.

- The proposed project is based on work started by Ms. Jones-Daley at the Local Development Corporation of East New York. As a community organizer of LDC-ENY and long time resident of ENY, Ms. Jones-Daley has been involved with community members for many years regarding issues of environmental injustice. Ms. Jones-Daley has developed the East New York Food Policy Council (ENY-FPC), with a mission to improve the quality of life of the community through food justice. The ENY-FPC is an action group that develops activities, programs, and workshops to inform community residents and improve food habits. In addition, the Council supports food policies that positively impact and shape ENY community's food access and nutritional health.

Project Summary

A number of project milestones have been met during the previous year.

1. We opened the ENY Food Co-op and have been building membership. The store opened in November 2006. During the past year we have increased the types of healthy foods sold as well as the number of members and sales. We have also held the second election and voted for the 2007-2008 Board of Directors.
2. We have implemented a regularly scheduled health education program at the ENY Food Co-op twice a month. Students from Hunter College host cooking demonstrations and provide nutrition education to members and non-members. These interactive classes have (a) promoted shopping in the store; (b) introduced local residents to new recipes and knowledge; and (c) established an internship program with another college allowing students to learn how to work in CBPR settings. We began implementing the train-the-trainer program to have members conduct these workshops during the summer.
3. We have implemented a health screening program that takes place at the ENY Food Co-op once a week. The screening program is available to members and non-members and we measure blood pressure, glucose, total cholesterol, height and weight. Over 250 people have been screened during the past year. We use the health screening to make sure community members know what their results mean and how they can maintain or improve their health through diet and exercise. Through this program, we have identified very few people that did not already have a primary health provider. Dr. Bordowitz oversees this program and reviews the screening results weekly.
4. We have analyzed data from focus groups that were conducted during the previous year targeting questions about residents' perceptions about their local food environment and how the community would respond to a member owned and operated food store. This information has been presented back to the community and is currently under review for publication.
5. We have been consistently conducting our quantitative interviews with ENY residents collecting information about diet, exercise, quality of life, shopping patterns, nutrition knowledge and self efficacy.
6. We have developed a number of communication and dissemination tools. Our communication distribution through paper sources include: (a) a biannual newsletter; (b) a regular distribution of advertisements and flyers about workshops and the store; (c) pamphlets for health education and (d) abstract and manuscript submissions. Our verbal communication has been through the following mechanisms: (a) our annual community festival/block party; (b) oral presentations at the American Public Health Association meeting and other local meetings; (c) other community events such as the anniversary party and the garden picnic; and (d) regularly scheduled monthly ENY Food Co-op board/member meetings and meetings of the project directors. Third, we have developed visual communication through the development of the ENY Food Co-op documentary which has been shown at community events as well as shared with local government officials and potential funders.
7. The Annual Event, the ENY Food Co-op Block party was an outdoor event that took place, on the city block behind the ENY Food Co-op, and brought together other community based organizations in Brooklyn and New York City around issues of food justice. Over 150 community members participated by visiting various tents with participatory activities for adults and children aimed to increase nutrition and physical activity awareness. Children

remained active with hoola hoops, jump ropes, and craft activities. The day culminated with a raffle of six bikes (donated by Recycle a Bicycle) to children and other cooking equipment for adults.

8. We have developed tools for the community to use. For instance, we developed maps of the distribution of food store within East New York compared to neighboring areas. In addition, we have surveyed a random number of these stores for the availability of healthy foods. In addition, we are currently preparing a guide to healthy eating in local restaurants which is being developed as part of our student internship program.

Public Health Impacts

We have made available in East New York, a new food store that carries healthy foods that can be purchased nowhere else in East New York. We have established a regularly scheduled health education program (both through the workshops and health screenings) for the ENY community to learn about nutrition, how to cook new foods and how diet and exercise relates to health. We have developed a forum for community leadership around the issue of food justice by developing a community owned and operated store. This forum allow for community members to be involved in the decisions about the store, as well as the programs we run at the store. We have worked with local groups to develop similar food co-operatives as well as work nationally to share our successes and lessons learned for other community groups and public health professional. We have been working with Mayor Bloomberg's office and one of his press conferences around unequal access to healthy foods in NYC was scheduled to take place that ENY Food Co-op last spring.

Policy Impacts

none know of yet.

Publications

none at this time

Contact Information

PI

Kimberly Beth Morland
Assistant Professor
Mount Sinai School of Medicine
Researcher
One Gustave L. Levy Place, Box 1057
New York, New York 10029

Collaborator

Salima Jones-Daley
East New York Food Co-op
419 New Lots Avenue
Brooklyn, New York 11206

Collaborator

Richard Bordowitz
Mount Sinai School of Medicine
One Gustave I. Levy Place, Box 1043
New York, New York 10029

JUSTA: Justice and Health for Poultry Workers

Grant Number: OH 008335

Funded By: NIOSH

Principal Investigator

Sara A. Quandt, Wake Forest University School of Medicine

Collaborators

Bless Burke, M.A.

Executive Director

Centro Latino of Caldwell County, Inc.

Michael Lee Coates, M.D.

Professor

Wake Forest University School of Medicine

Francisco J. Risso

Director

Western North Carolina Workers Center

Project Aims

The overall goal of this project is to address the health disparities faced by immigrant Latino workers in the poultry production and processing industry in rural, western North Carolina, through a partnership of community advocates from Centro Latino, environmental health scientists at Wake Forest University School of Medicine, and health care providers at Wake Forest University School of Medicine. This partnership is JUSTA, Justicia y Salud para los Trabajadores Avícolas (Justice and Health for Poultry Workers). Workers in the poultry industry in the United States experience a disproportionate share of occupation-attributed musculoskeletal, skin, and respiratory disorders. Recent trends in this industry have concentrated the injuries in a worker population that is poor, minority, and comprised predominantly of immigrants. These workers lack safety and health education aimed at their specific work and social challenges.

To bring about greater social and environmental justice for these workers, the proposed work will have two foci. The first focus is on individual workers and their families, helping them to be more resilient to stressors. This focus recognizes that individuals need to work and that they will continue to work in industries that are detrimental to their health and well-being. The second focus is on the community, strengthening community-based organizations so that they can move toward social and regulatory change and justice. Community advocates, health care providers and environmental health researchers will work together in this project to address five specific aims:

1. To encourage social action by Latino community-based advocacy groups in western North Carolina to effect policies that reduce the burden of occupational and environmental health disparities due to employment in the poultry industry;
2. To construct a foundation to design educational materials and communication strategies to prevent or reduce exposure to physical and social occupational stressors and minimize their effects among poultry worker families in North Carolina; this will include (a) documenting knowledge, beliefs, and experiences of poultry worker families in North Carolina about stressors caused by different types of poultry work as well as methods of protecting themselves and their families from exposure at work and in the home, (b) documenting exposures and outcomes of stressors among poultry worker families, and (c) documenting other occupational and environmental health concerns that arise from discussions with poultry worker families.

3. To develop culturally and linguistically appropriate educational materials and implement programs that will promote ways to prevent or reduce exposure to physical and social occupational stressors and their effects among poultry worker families.
4. To develop educational materials and implement programs that will better prepare health care providers to recognize and treat with cultural competence illnesses caused by stressors related to poultry production and processing among immigrant families, and counsel families on ways to prevent or reduce exposure.
5. To evaluate the process and outcomes of community participation in this project so that it can be used by other community-based organizations to engage community residents in efforts to reduce environmental and occupational risks in their communities and seek environmental justice.

Project Summary

Specific Aim 1:

To encourage social action by Latino community-based advocacy groups in western North Carolina to effect policies that reduce the burden of occupational and environmental health disparities due to employment in the poultry industry.

The collaborating community-based organization (CBO) was changed at the beginning of Year 3 from Centro Latino of Caldwell County to the Western North Carolina Workers Center in Morganton, NC. Francisco Risso is the Workers Center PI. This organization is active in addressing both individual worker complaints and actions and organizing community-wide workshops and meetings for immigrant workers (e.g., on workers compensation claims). They are active as a member organization of COLA, the Coalition de Organizaciones Latino-Americanas, a collaborative of approximately 25 Latino-led organizations across western North Carolina intent on strengthening grassroots efforts to address problems common to the Latino community, including immigration, labor rights, education and racial discrimination.

JUSTA investigators and staff continue to network on a regular basis with leaders of Latino organizations that have a state-wide focus.

The JUSTA advisory board meets quarterly. It works with a three-level plan for social action. This includes aiming messages for social action to (1) workers, (2) local non-Hispanic community members, and (3) policy makers at the state and national level. Messages for workers are discussed below under Aim 3. To address the local community, the board continues to work toward having media stories drawing attention to the need for improvement in working and living conditions of Latino immigrant workers in the project area. This is accomplished through the distribution of press releases following the release of working papers or publishing of peer-reviewed papers; the WFUSM public relations office has been extremely supportive in drafting and distributing these. To address policy makers, the project continues to produce working papers that are distributed electronically and in hard copy to advocates throughout the state and nation. These advocates have a direct link to policy makers and use data to advocate for improved workplace regulations.

During the past year, the JUSTA investigators Sara Quandt and Francisco Risso applied for and received a grant from the Poverty and Race Research Action Council (PRRAC) to expand their reach to advocacy organizations. This grant provides for research (described below) to create “stories” of individual poultry workers, their injuries, and the impact of their injuries on themselves and their families. These stories are used by Risso as he travels to meetings in which he advocates for poultry worker rights (travel also supported by the PRRAC grant). One of the primary appointments through which Risso is able to talk with policy makers is as a member of the North Carolina Governor’s Advisory Council on Hispanic/Latino Affairs. He has also worked with El Pueblo, a statewide legislative advocacy organization based in Raleigh to put worker’s rights and the meat packing/poultry processing industry on the agenda. This year Risso, other JUSTA staff, and the promotoras attended a conference and training session in Nashville sponsored by poultry worker program of the Center for Community Change in Washington, DC. Promotoras presented JUSTA educational materials.

Another major activity requested by the community groups and advisory board was a health fair to provide direct medical screening and assistance to the Latino poultry worker community. This fair was held in Morganton, NC, on October 28, 2006. Over 70 Latino individuals participated. In addition to the usual weight/height, blood pressure, cholesterol, and blood glucose screenings, participants received dermatological screenings and screenings for musculoskeletal injuries. Poultry workers also participated in interviews designed to collect data on skin- and musculoskeletal-related quality of life, and on self-reported skin and musculoskeletal symptoms.

Specific Aim 2:

To construct a foundation to design educational materials and communication strategies to prevent or reduce exposure to physical and social occupational stressors and minimize their effects among poultry worker families in North Carolina; this will include (a) documenting knowledge, beliefs, and experiences of poultry worker families in North Carolina about stressors caused by different types of poultry work as well as methods of protecting themselves and their families from exposure at work and in the home, (b) documenting exposures and outcomes of stressors among poultry worker families, and (c) documenting other occupational and environmental health concerns that arise from discussions with poultry worker families.

This aim was largely accomplished in Years 1 and 2. In addition to research reported in previous progress reports, a series of 12 in-depth interviews were conducted in the past year, as described above for the PRRAC grant. These were conducted with 12 Latino poultry processing workers (current or former), who had experienced injuries. The goal was to produce stories that illustrated the environmental/occupational factors that led to the injuries, the experiences workers had in trying to get compensation and health care, and the long term effects on the workers and their families. From these 12 interviews, the best 6 were selected for transcription. These were summarized into case studies for the use of Risso in his advocacy work. The transcripts have also been coded as those collected in Year 1 of the project and will be used as part of the ongoing qualitative analysis.

Specific Aim 3:

To develop culturally and linguistically appropriate educational materials and implement programs that will promote ways to prevent or reduce exposure to physical and social occupational stressors and their effects among poultry worker families.

We reported last year that we had developed a lesson on recognizing, treating, and preventing musculoskeletal injuries. This includes information on workers' rights. It also contains information about how to get more information in the local community concerning these rights and assistance in reporting occupational injuries. The content and delivery of this lesson is based on oral presentation and a flipchart story with minimal reading required. We use this format because a large number of the local workers speak Spanish as a second language (an Indian language is their first) and they do not read Spanish. The promotoras are presenting the lesson in small groups (i.e., in homes) and in larger groups (e.g., churches, health department waiting rooms).

We proceeded to locate and train promotoras de salud, lay health advisors who are members of the Latino community. The promotoras are trained to recruit community members for lessons on occupational and environmental health education. So far, 8 people have participated as promotoras. Four resigned, two to take jobs that did not allow time for promotora activities, and two because they did not enjoy the work. The remaining four are currently active in their communities. From April 30, 2006, to October 1, 2007, more than 700 persons have been educated by the promotoras. Each promotora keeps notes of encounters, and these are reviewed at weekly meetings with JUSTA project staff.

In addition to the first lesson on hand and wrist injuries, we have developed a second on slips and other unintentional injuries in poultry plants. This includes information on forming safety committees and on workers right. A third flip chart has also been developed in response to suggestions by the advisory committee. It focuses on financial scams to which the Latino community often falls prey.

As an adjunct activity, project director Marñan has begun a lay health promoter activity in a different format, a group of Latino adults who work primarily in the poultry industry (and often their whole families) that meet once or twice per month to discuss health issues and act as a support group. This group (called the Nutrition Group)

has addressed issues of living in a new environment where food supply and activity patterns are so different from the native community that obesity and diabetes are becoming major health issues. This group has combined information on nutrition and physical activity with the workers' rights information contained in the promotora program. Informal results to date are that 20 of 30 adults have demonstrated weight loss. Less measurable, but apparent, are changes in self-efficacy and attitude. This group has spun off a groups interested in mental health and physical activity.

Specific Aim 4:

To develop educational materials and implement programs that will better prepare health care providers to recognize and treat with cultural competence illnesses caused by stressors related to poultry production and processing among immigrant families, and counsel families on ways to prevent or reduce exposure.

Based on the original research conducted, a continuing education program for health care providers has been developed. The goal was to use a model implemented in another EJ project for pesticide safety: record modules on CD for distribution and arrange CE credits through the local AHEC. After investigation of the cost of arranging the CE credits (and knowledge that the fee would only be good for one year), we have decided to produce and distribute the CD ourselves. The CD is now complete and we are arranging for recording the audio. Distribution will be through listservs and newsletters for health care providers for immigrant workers.

Public Health Impacts

Survey and qualitative research have been used to develop culturally and linguistically appropriate educational materials. These have been implemented in a lay health advisor program to reduce occupational injuries and social occupational stressors and their effects among poultry processing families.

Lay health advisors (promotoras) have now been trained and are providing health education in the JUSTA counties. Continuing medical education materials have been developed for health care providers who care for immigrant poultry workers. Topics include:

- 1) Common occupational exposures related to injury and illness in the poultry processing industry;
- 2) Injuries and illnesses common among poultry processing workers: Diagnosis/Treatment/Prevention;
- 3) Cultural and social issues related to injuries, illness, treatment-seeking, and adherence;
- 4) Workers compensation procedures

Two sponsored workshops (in Durham and in Wilkesboro) concerning sexual harassment of immigrant workers in the workplace, with Monica Ramirez of the Southern Poverty Law Center as facilitator. The audience included service providers and immigrant worker advocates, as well as Latino community members. JUSTA staff sponsored a health fair at the request of community groups and the JUSTA advisory board, to provide direct medical screening and assistance to the Latino poultry worker community. This fair was held in Morganton, NC, on October 28, 2006. Over 70 Latino individuals participated. In addition to the usual weight/height, blood pressure, cholesterol, and blood glucose screenings, participants received dermatological screenings and screenings for musculoskeletal injuries. Poultry workers also participated in interviews designed to collect data on skin- and musculoskeletal-related quality of life, and on self-reported skin and musculoskeletal symptoms. Several programs to promote physical activity in the Latino community have been instituted by JUSTA staff. They include:

- 1) "Get Out and Move," a weekend program that leads physical activities such as: tennis, racquetball, hiking on the Blue Ridge Parkway or walking at the local community college;
- 2) "Y on Wheels," a free program of the YMCA to pick up children and parents and transport them to the Y for physical activity.

Policy Impacts

Co-PI Risso serves on the North Carolina Governor's Advisory Council on Hispanic/Latino Affairs. This body advises the governor on topics that directly and indirectly affect health. At Risso's request, one of the four

quarterly meetings was devoted to worker health and safety. PI Quandt was one of 4 invited presenters at this meeting, and the only one who was not affiliated with governmental agency. Western North Carolina Workers Center has expanded the Promotora program on worker safety to workers in other industries in Asheville and Hendersonville, North Carolina. These promotoras were trained by JUSTA staff and use educational materials developed by JUSTA. JUSTA staff and worker participation in local groups as led to an increased emphasis on literacy and language. ESL classes have been started by one community agency, 20 adults and 15 children attending twice/week. A program to encourage Latino parents to read with children,

Publications

Quandt SA, Arcury TA. Workers in the Modern Poultry Industry. IN Proceedings from NIOSH Conference on Health of Immigrant Workers, Lowell, MA, September 2004.

Format: Government Document

Date: In Press

Quandt SA and others. Ethnographic, Anthropological and Other Qualitative Research Methods. IN Proceedings from NIOSH Conference on Health of Immigrant Workers, Lowell, MA, September 2004.

Format: Government Document

Date: In Press

Hiott A, Grzywacz JG, Arcury TA, Quandt SA. Gender differences in anxiety and depression among immigrant Latinos. Family, Systems, and Health. 2006; 24:137-146.

Format: Journal Article

Date: 2006

Quandt SA, Schulz MR, Feldman SR, Vallejos Q, Marin A, Carrillo L, Arcury TA. Dermatological illnesses and injuries among immigrant poultry processing workers in North Carolina. Archives of Environmental and Occupational Health. 2005;60:165-169.

Format: Journal Article

Date: 2005

Quandt SA, Grzywacz JG, Marin A, Carrillo L, Coates ML, Burke B, Arcury TA. Occupational illnesses and injuries among Latino poultry workers in western North Carolina. American Journal of Industrial Medicine. 2006; 49:343-351.

Format: Journal Article

Date: 2006

Grzywacz JG, Arcury TA, Marin A, Carrillo L, Burke B, Coates ML, Quandt SA. Work-family conflict: Experiences and health implications among immigrant Latinos. Journal of Applied Psychology, 2007;92:1119-1130.

Format: Journal Article

Date: 2007

Grzywacz JG, Arcury TA, Marin A, Carrillo L, Coates ML, Burke B, Quandt SA. The organization of work: implications for injury and illness among immigrant Latinos in poultry processing. Archives of Environmental and Occupational Health. In press.

Format: Journal Article

Date: 2007

La historia de Maria. Quandt SA, Marin A, Lane CM, Carrillo L. Wake Forest University School of Medicine, 2006

Format: Flip Chart

Date: 2006

Le resbalón de Juan. Quandt SA, Marin A, Lane CM, Carrillo L. Wake Forest University School of Medicine, 2006

Format: Flip Chart

Date: 2006

Cuide su dinero: no e deje engãar. Marin A, Carrillo L, Lane CM, Quandt SA. Wake Forest University School of Medicine, 2007

Format: Flip Chart

Date: 2007

Contact Information

PI

Sara A. Quandt, Ph.D.

Professor

Wake Forest University School of Medicine

Researcher

Department of Public Health Sciences

Winston-Salem, North Carolina 27157

Collaborator

Bless Burke, M.A.

Centro Latino of Caldwell County, Inc.

P.O. Box 693

Lenoir, North Carolina 28645

Collaborator

Michael Lee Coates, M.D.

Wake Forest University School of Medicine

Department of Family and Community Medicine

Winston-Salem, North Carolina 27157

Collaborator

Francisco J. Risso

Western North Carolina Workers Center

P.O. Box 667

Morganton, North Carolina 28680

Alton Park/Piney Woods Environmental Health and Justice

Grant Number: ES014317

Funded By: NIEHS

Principal Investigator

Mary E. Rogge, University of Tennessee

Collaborators

Geri Spring

Executive Director

Alton Park Development Corporation

Bill Hicks

Executive Director

Southside/Dodson Avenue Community Health Centers

Project Aims

1. To create, implement, and evaluate collaboration among AP/PW neighborhood organizations, health care providers, research scientists, and policy makers to enhance trust and partnerships that promote environmental health and justice.
2. To inventory and build upon neighborhood, local, state, and other resources for adult and youth leadership, educational, and occupational opportunities within the AP/PW neighborhood with regard to research being conducted by the EHJC.
3. To create a neighborhood-based model of information exchange and community outreach about a range of technical, social, economic, environmental, political, and cultural factors with a focus on chemical contamination. This model will be structured to be sustainable over time and to facilitate simultaneously ongoing 1) knowledge, capacity, and opportunity building for AP/PW adults and youths and 2) knowledge and capacity building for public health providers, EHJC researchers, and policy makers about AP/PW neighborhood needs, strengths, and policy preferences.
4. To collect and assess data about neighbors' knowledge of chemical contamination in AP/PW, potential health effects of this contamination, and health risk reduction strategies and tactics.
5. To engage AP/PW adults and youth in data collection, information exchange, collaborative partnerships, and actions that influence policy changes toward improved ecological health and decreased health risk within the AP/PW neighborhood, Chattanooga, and other communities across Tennessee.

Project Summary

Aim 1

In Year 2, we continue to build the Alton Park/Piney Woods (AP/PW) Environmental Health and Justice Collaborative (EHJC; Aim 1). All Team staff meetings were held monthly on average, along with specific program project team meetings (Appendix A). As of June 1, we have a full complement of community-based program staff, with a full time environmental health specialist and part time administrative assistant at the Southside/Dodson Avenue Community Health Center (SSDACHC) and a full time community organizer and part time program staff at the Alton Park Development Corporation (APDC). At the University of Tennessee (UT), ongoing management tasks have included renewed annual approval and additional evaluation form approval by the IRB (Appendix B). The EHJC website at <http://chattanooga.creek.utk.edu> is operational. An extensive process and outcome evaluation of Year 1 EHJC activities was completed in December 2006 (Appendix C*). We continue to collect evaluation data on all major EHJC projects and activities (Appendix A*) and prepare for Year 2 program evaluation.

Aim 2

We continue to link local, state, and regional resources for adult and youth leadership (Aim 2) through EHJC activities and support of other organizations' initiatives (Appendix A). Two highlights in this regard were the August 2006 EHJC Harambee Festival, attended by about 300 individuals and co-sponsored by many community agencies (Appendix C, pp. 29) and the September 2006 AP/PW Environmental Research and Community Action Conference (Appendix C, pp. 37-41). The EHJC is co-sponsoring the June 16, 2007 AP/PW 3rd Annual Harambee Festival. Collaboration with other central neighborhood organizations, including the Villages at Alton Park, Southside Recreation Center, the Bethlehem Center, Mary Walker Towers, and Howard [High] School of Academics and Technology is strong and growing. Calvin Donaldson Middle School, recently designated as an Academy of Environmental Sciences (see Appendix F) has requested to host NEC courses for their parents in fall 2007 [Postponed until Spring 2008]. All but one of the eight graduates of the first NEC course (Appendix C, pp. 27-35) have participated in EHJC activities, from volunteering at events to ongoing committee membership. Regional leadership development organizations have been engaged: Southern Empowerment Project staff facilitated training at our staff retreat April 25, 2007; through Project South, EHJC staff helped plan for the June 2007 U.S. Social Forum (<http://www.projectsouth.org/>). The Tennessee Clean Water Network and the Isaac Walton League are on line to participate in the first NEC youth class this summer (Appendix G), as are representatives from the UT Undergraduate Admissions and the School of Agriculture and Natural Resources.

In Year 2, the EHJC submitted four grant proposals. Two proposals involved EHJC youth-related activities. Through EHJC partner SSDACHC, we submitted, with Meharry Medical College, a grant to the National Cancer Institute for a NEC course targeting health risks from environmental contaminants and systematic social and health disparities. Through a 4th grant with the Chattanooga/Hamilton County Health Department, about 84 radon home test kits have been distributed to date through NEC classes and local EHJC partners. Additionally, the EHJC has a key outreach role with AP/PW public schools in a new, successful UT proposal to the National Science Foundation to promote diversity in the geosciences (Appendix H).

Aim 3

In Year 2, we developed and implemented the Environmental Health and Wellness course (EHW); 36 neighbors graduated (Appendix E). We developed a NEC facilitator's packet and held pre-course training (Appendix C, pp. 33-34; Appendix D). From June 12 - July 19, 2007, the first NEC youth class - with about 48 participants [34 youth graduated July 19] - will build on Contamination and Chattanooga Creek course content (Appendix G). This youth class is notable for the high level of collaboration among EHJC partners, the Villages at Alton Park, the Southside Recreation Center, the Bethlehem Center, and Howard School of Academics and Technology. The class includes a Youth Leadership Summit, during which youths will plan advocacy and outreach activities for Year 3.

Aim 4

We continue to collect and assess neighbors' knowledge of chemical contamination and potential health effects, and health risk reduction strategies and tactics (Aim 4) through the NEC classes, collaboration through the SSDACHC and Meharry Medical College, and other EHJC activities. In keeping with our time line (Appendix I), the Oral History Planning Committee is researching oral history methods and traditions and is planning the implementation and evaluation of the Oral History Project. Using participatory planning methods and incorporating popular education techniques, the committee developed the overall Project objective and goals, and plans for evaluation, communication, and dissemination (Appendix J). Three EHJC members (one from each EHJC partner) attended the June 2007 Oral History Training Institute to prepare them to instruct others on oral history methodology. A major thrust of the Oral History Project will begin in fall 2007 [postponed until Spring 2008] with the Howard School of Academics and Technology.

Aim 5

To expand opportunities for neighbors to engage in political processes, outreach, and public meetings (Aim 5), NEC graduates and class participants attended community meetings about Brownfields in AP/PW and made new connections with city planners, neighborhood advisory groups, and health researchers. Outreach through the EHW class included home health assessments; telling family, friends, and other neighbors about radon, indoor/outdoor pollution, and other environmental health risks; and presenting talks at church. EHJC staff received requests from participating neighbors for future classes at churches and other local settings. At the May 17 graduation, four graduates spoke eloquently to the approximately 110 attendees about their learning and the

responsibility to spread the word and to act. Additionally, APDC/EHJC staff Falice Haire is now the AP/PW neighborhood reporter for the Chattanooga Times Free Press and has used that venue to update citizens about the EHJC and to further strengthen network connections.

Significance

In Year 2, the EHJC has augmented the structure and content of - and neighbor participation in - the NEC, our central structure. Relationships with other AP/PW organizations, public officials, and other local resources have been augmented. Neighbors, public officials, and environmental researchers from universities and public agencies continue to exchange and disseminate information about health and policy risks, change strategies, and policy impacts in the AP/PW through NEC classes, special events, and through other local and international venues for presentation (Appendix K).

Plans for Year 3 include:

1. Continue to build community networks; emphasize writing manuscripts to disseminate research findings through journals and the website, participate in local and international presentations, including the 2007 APHA; evaluate processes and outcomes (Aim 1);
2. integrate course graduates more fully into post-graduation activity, expand leadership development opportunities for youth and adults (Aim 2);
3. Repeat NEC adult courses 1 and 2 and the summer youth course, respond to local schools, churches, and organizations who have requested to host courses, augment outreach and advocacy content, initiate adult course 3 (Aim 3, 5);
4. integrate and adapt course and event survey instruments to assess neighbors' knowledge of chemical contamination in AP/PW (Aim 4);
5. resolve transportation and liability issues to engage new EHJC participants with other communities to identify and reduce public health risks and influence policy change (Aim 5).

* All Appendixes are on file at NIEHS/EJ and are available from the EHJC through <http://chattanoogacreek.utk.edu>

Public Health Impacts

The active EHJC NEC courses and youth events network, through which public and environmental health information is disseminated and gathered, includes other central neighborhood organizations, including the Villages at Alton Park (public housing; youth projects/NEC classes), Southside Recreation Center (youth events), the Bethlehem Center (primary community center; NEC adult and youth classes) and Mary Walker Towers (senior residential center; NEC adult classes), the Howard [High] School of Academics and Technology (NEC youth classes, youth/adult oral history project), and the Calvin Donaldson Middle School (designated as of fall 2007 as an Academy of Environmental Sciences; adult and youth classes and projects). The Environmental Health and Wellness course (EHW) for adults was developed and first implemented in spring 2007; 36 neighbors graduated. This course is scheduled again in spring 2008 and will be co-sponsored by the Bethlehem Center and Calvin Donaldson Middle School. EHW participants performed in-home health-related assessments and participated in a project with the Hamilton County Health Department to distribute and monitor in-home radon. Other outreach through the EHW class included home health assessments; telling other neighbors about radon, indoor/outdoor pollution, and other environmental health risks; and presenting talks at church. In summer 2007 the first NEC youth class, with 34 graduates, built on the Contamination and Chattanooga Creek adult course. The class included a Youth Leadership Summit. The youth course is scheduled again during the summer of 2008, again hosted at the Bethlehem Center. Distribution of public and environmental health and wellness information and contact with resource agencies was emphasized during the August 2006 EHJC Harambee Festival, attended by about 300 residents, and the June 2007 AP/PW 3rd Annual Harambee Festival, attended by about 150 residents. Through a grant with the Chattanooga/Hamilton County Health Department, about 84 radon home test kits have been distributed to date through NEC classes and local EHJC partners.

Policy Impacts

NEC class participants and graduates have attended neighborhood meetings about brownfields and other health issues in AP/PW. Through NEC classes and events, they have met with and exchanged information and recommendations about neighborhood environmental needs with city planners, pollution control officials, elected officials, neighborhood advisory groups, and health researchers.

The focus of the AP/PW EHJC to date has been structuring and implementing the Neighborhood Environmental College (NEC) and its courses. A primary objective of our second round of core courses, beginning in spring 2008, is to influence organizational and governmental policy through course outreach, advocacy and leadership development activity, and to evaluate and document related, measurable outcomes. In Fall 2007 EHCJ and Southside Recreation Center initiated the "Save the South" environmental education and advocacy with art project; approximately 20 youths will participate in three public showings of their projects in spring 2008. An APDC/EHJC staff member is the AP/PW neighborhood reporter for the Chattanooga Times Free Press; that venue is used to update citizens about the EHJC, environmental issues, and other AP/P/w neighborhood events. The September 2006 AP/PW Environmental Research and Community Action Conference, hosted in the Piney Woods Family Resource Center, included presentations by neighbors and neighborhood organizations, local, state, and national governmental entities. Sixty six participants representing 30 neighborhoods to national organizations and institutions attended. The next Conference is planned for the fall of 2008.

Publications

Neighborhood Environmental College course 2,
Format: pdf
Date: November 2007

Neighborhood Environmental College Youth course
Format: pdf
Date: September 2007

Neighborhood Environmental College course I
Format: pdf
Date: July 2007

Contact Information**PI**

Mary E. Rogge
Associate Professor
University of Tennessee
Researcher
College of Social Work
225 Henson Hall
Knoxville, Tennessee 37996-3333

Collaborator

Geri Spring
Alton Park Development Corporation
701 Hooker Rd
P.O. Box 2345
Chattanooga, Tennessee 37409

Collaborator

Bill Hicks
Southside/Dodson Avenue Community Health Centers
100 East 37th Street
Chattanooga, Tennessee 37410

Promoting Occupational Health Among Indigenous Farmworkers in Oregon

Grant Number: 5R250H008334-02

Funded By: NIOSH

Principal Investigator

Nargess Shadbeh, Oregon Law Center-Farmworker Program

Collaborators

Stephanie Farquhar
Associate Professor, PhD
Portland State University

Ramon Ramirez
President
PCUN

Sylvia Arroyo
Administrator
Salud Medical Center

Project Aims

1. Identify priorities for workplace safety education, interventions, and policy change for farmworkers speaking indigenous languages, health providers serving this community, and other stakeholders.
2. Build leadership and problem-solving capacity among persons speaking indigenous languages.
3. Collaborate with community agencies, activists, and advocates serving indigenous workers to develop strategies to increase the workers' knowledge and use of resources on priority issues.
4. Develop educational materials relevant to the health and safety of indigenous farmworkers and disseminate these materials via multiple mechanisms.
5. Increase the agricultural community's knowledge of the needs of indigenous farmworkers.
6. Develop sustainable programs to improve the health of this population and to create effective identified priorities.
7. Develop a successful partnership including representatives from the farmworker communities, health providers, and environmental scientists through this Project.

Project Summary

To promote the occupational health of growing but under-served indigenous farmworker communities, our multi-disciplinary team committed to an approach in which four indigenous outreach partners speaking two distinct indigenous languages Mixteco Alto and Mixteco Bajo played central roles in project planning and implementation. To the best of our knowledge this is the first multi-disciplinary project focused on occupational health issues of indigenous farmworkers in Oregon, and perhaps nationally. Over the past three years, the team has strived to ensure cultural and linguistic appropriateness of all activities ranging from conducting focus groups to surveys of indigenous and Latino farmworkers in the fields. Indigenous community educators have also been an integral part of the development and dissemination of creative outreach materials to overcome the barriers in reaching non-Spanish speaking, low literacy farmworkers. We have found that indigenous farmworkers respond very enthusiastically to receipt of information in their own languages from indigenous peer educators.

Because many indigenous languages are no longer written, non-written or are in formats not all speakers of the languages can understand, the educational materials were presented on CDs and cassette tapes developed by the

project. Topics included occupational health and safety issues identified as priorities by the indigenous farmworker communities such as pesticide exposure, minimum wage and deductions, and field sanitation. The information was presented in a sociodrama format and recorded in Mixteco Alto and Bajo, Triqui de Itonyoso and de Copala, Zapoteco Ejutla de Crespo and Spanish with music. The project has also distributed the same information through a local radio station with indigenous language programming.

Implementation of the promotores component of the project began in the past year. The project's indigenous community educators identified indigenous farmworkers who wished to obtain occupational health training and improve the working conditions of their communities in the fields. The training consisted of not only pesticide and field sanitation information but training on problem solving and community advocacy in various arenas. Preliminary comments from the ten indigenous promotores who speak Mixteco Alto, Mixteco Bajo, Triqui de Copala, and Zapoteco del Valle, indicates that the training assisted them in very concrete ways to improve their working conditions. Examples include reminding the mayordomo that the workers are not to enter a field recently sprayed, and being selected by peers to serve on the safety committee at work. Most importantly, the promotores shared that they feel much less isolated and more connected with their communities as a result of their participation with the project.

The promotores along with the project's indigenous community educators, have jointly presented issues of occupational safety in the field before the EPA Worker Safety Conference in Arlington, Virginia, in which the EPA solicited their participation, and before the Oregon's Occupational Safety and Health Administrator providing information as to the needs of the indigenous communities and addressing specific proposed language for regulations on farm labor camps in Oregon. The continued participation of indigenous community members at upcoming conferences and public hearings are anticipated.

In its fourth year, the project plans a second round of training for new promotores with the participation of the current promotores, and another 150 surveys in the field. The project has made numerous presentations locally and nationally to raise the awareness of health clinics, governmental agencies and other stakeholders about indigenous farmworkers' occupational health needs. After three years of work in this area, the project is convinced that the issues of indigenous farmworkers are not a uniquely West Coast phenomenon as the project receives frequent questions from clinics and social service organizations from one coast to the other. Ideally, the lessons learned from the project will benefit and inform future programs as the indigenous farmworker population continues to expand into other parts of the country.

Public Health Impacts

Indigenous farmworkers felt that their workplace safety was not a priority for supervisors or employers. They cited incidents of being injured or ill at work but with little or no access to basic first aid kits. Indigenous farmworkers repeatedly complained that the Spanish language training videos were not easily understood by indigenous speaking workers. No trainings were reportedly ever conducted in any indigenous languages for indigenous farmworkers whose primary language was not Spanish. Although 90% of indigenous survey participants reported speaking Spanish, only 87% said they understood Spanish well enough to receive training information presented orally, and only 40% said they could understand Spanish well enough to receive training information, such as pamphlet or brochure. The Worker Protection Standards asks the workers to change their clothes and bathe immediately upon arrival at home, only 9% of the workers in our survey (150 survey participants) reported changing their clothes immediately or bathing. Additionally, only 37% of workers had laundry facilities in their home and even a lesser number had access to laundry facilities if they lived at a labor camp. Indigenous farmworkers described feelings of isolation and being disrespected and disregarded by their employers and supervisors. When asked to cite examples they offered incidents in which even when provided with training the training was not relevant to the work they were assigned to perform. The survey results showed that more months had passed since any training for indigenous farmworkers than Latino workers. Only 57% of the farmworkers who reported currently or previously working in pesticide treated areas had received some form of health and safety training. Workers complained of lack of appropriate training and were interested in information on how to protect themselves and their families with regard to pesticide exposure in short and long term. They also reported symptoms of itchy skin, eye irritation, difficulty breathing. About 65% of workers said their health

was “fair” or “poor.” This is a lower rating than the general US Hispanic population, who on *average rate* their health as “very good” or “good” (58%).

Policy Impacts

Given that many indigenous farmworkers do not read or write in English or Spanish, and since it appears that training on worker health and safety is currently only provided in Spanish or English to indigenous workers, there should be a thorough examination as to whether these trainings meet the test of “understood by the worker”. Given that many indigenous farmworkers do not read or write in English or Spanish, and since it appears that central posting information, if any, regarding specific pesticides applied are in Spanish or English, indigenous speaking farmworkers with limited or no fluency in Spanish appear to have no meaningful access to this information. Indigenous farmworkers and Latino farmworkers have responded positively to picture books depicting one crop and the short and long term symptoms shown with lots of photos and little writing. These crop books could be considered a viable training tool in putting relevant and concrete information in the hands of field workers and their families. The Promotores program, which has helped develop and implement a peer education program to raise farmworkers' level of awareness of workplace hazards and ways to protect themselves and enforce their rights is consistent with the indigenous farmworkers' articulated priority in receiving information through their peers in one-on-one settings. Successful tools for outreach to non-English, non-Spanish speaking indigenous farmworkers include CDs and tapes containing 'sociodramas' using the voices of indigenous speakers with music. The scenarios set up easily understood daily situations that a worker may encounter and provide simple single messages on how to protect health and safety. Preliminary reports from indigenous farmworkers engaged as promotores, who participated in a training and now share information regarding community advocacy and occupational health issue such as pesticide exposure with their peers, show that this method of disseminating information to indigenous farmworker communities is viable.

Publications

Northwest Health Foundation Annual conference (2007).

Format: Presentation

Date: July 2007

Farquhar, S.A., Samples, J., Ventura, S., Davis, S., Abernathy, M., McCauley, L., Cuiwik, N., and Shadbeh, N. (2007). Promoting the Occupational health of indigenous farmworkers. *Journal of Immigrant and Minority Health*.

August, 2007

Format: Article

Date: August 2007

Farquhar, S.A., Protecting indigenous farmworkers in the Willamette Valley. *Oregon Public Health Association Newsletter*, Fall 2007.

Format: Article

Date: Fall 2007

Farquhar, S.A., Shadbeh, N., Samples, J., Ventura, S., and Cuiwik, N. Occupational Conditions and well-being of indigenous farmworkers. *American Journal of Public Health*. (under revision)

Format: Article

Date: 2007

2007 Western Migrant Stream Conference, Sacramento, CA.

Format: Presentation

Date: Jan 2007

Annual Grantee Meeting,

Format: Presentation

Date: Oct 2006

American Public Health Association Annual Meeting, Washington,DC.

Format: Presentation

Date: Nov 2007

EPA 2007 Pesticide Worker Safety and Health Conference, Arlington, Virginia.

Format: Presentation

Date: Oct 2007

CROET Conference,

Format: Presentation

Date: June 2007

American Public Health Association Annual Meeting, Boston, MA, (2006)

Format: Presentation

Date: Nov 2006

2007 Public Interest Environmental Law Conference,

Format: Presentation

Date: March 2007

2006 East Coast Migrant Stream Conference, South Carolina.

Format: Presentation

Date: Oct 2006

Contact Information

PI

Nargess Shadbeh

Farmworker Program Director, JD

Oregon Law Center-Farmworker Program

Community-Based Organization

Oregon Law Center

921 SW Washington St., Suite 516

Portland, Oregon 97205

Collaborator

Stephanie Farquhar

Portland State University

506 SW Mill Street, #450F

Portland, Oregon 97205

Collaborator

Ramon Ramirez

PCUN

300 Young Street

Woodburn, Oregon 97071

Collaborator

Sylvia Arroyo

Salud Medical Center

1175 Mt. Hood Avenue

Woodburn, Oregon 97071

Asian Girls for Environmental Health

Grant Number: IR25OH008378-01

Funded By: NIOSH

Principal Investigator

Eveline Shen, Asian Communities for Reproductive Justice

Collaborators

Katharine Hammond, PhD
Professor of Public Health
UC Berkeley School of Public Health

Joann Wong, MPH
Clinic Operations Manager
Asian Health Services

Project Aims

POLISH (Participatory Research, Organizing and Leadership Initiative for Safety and Health) focuses on Asian Pacific Islander (API) women and girls' exposure to hazards in beauty products. Its specific aims are to:

1. Educate, train and mentor Asian Pacific Islander teenage girls and Vietnamese nail salons workers who will:
 - Become knowledgeable about women's and girls' unique exposures to hazardous chemicals.
 - Learn how to uncover environmental health problems using community based participatory research.
 - Become skilled in educating youth, workers and the larger community about environmental health problems and developing community participation strategies.
 - Become educated about, and be mentored for, careers and educational opportunities in the sciences.
2. Increase scientific knowledge of Asian Pacific Islander low-income women's and girls' exposure to environmental hazards associated with beauty products.
 - Compile data on beauty products used by Asian Pacific Islander teenage girls, strength of allegiance to particular products, and marketing practices targeting this population.
 - Test for phthalates in beauty products commonly used by Asian Pacific Islander teenage girls, adding to the developing body of knowledge about phthalates in beauty products and the populations exposed to this chemical.
 - Conduct air quality testing to ascertain nail salon workers' chemical and solvent exposures.
 - Learn what protections, or perceived protections, workers are using and their knowledge of risks.
3. Develop culturally relevant interventions regarding teenage beauty product use (e.g., increase in knowledge regarding hazards in three high schools) and for workers in nail salons (e.g., translation of Material Safety Data Sheets into Vietnamese) and achieve one to two public policy or corporate changes designed to lessen exposures to hazardous chemicals in beauty products in personal use and in the workplace.
4. Share research findings and intervention models with researchers, public health students, the environmental justice movement, the women's health field, and clinics.

Project Summary

1. Over the course of the budget period, 50 Asian girls have gained skills in CBPR design, implementation and analysis as well as deepened their knowledge of hazardous chemicals in personal care products (PCPs). So as to best communicate the harmful effects of toxins in their PCPs, this group developed a digital story-telling tool to use in presentations with other youth and educate online. Also, they developed a series of interactive exercises that educated 150 Asian girls and boys at an API Youth Conference. As well, Participatory research, Organizing and Leadership Initiative for Safety and Health (POLISH) has conducted outreach to 100 nail salons and 2 churches to recruit workers as well as distribute outreach materials developed and translated into Vietnamese by the EPA as well as by our own project. POLISH has regular and ongoing meetings, every 6-weeks, with nail salon workers and worker/owners interested in taking leadership on this issue. To date, there are 15 nail salon workers and worker/owners who attend these meetings to identify ways that the CA State Board of Barbering and Cosmetology (BBC) can provide accessible and fair health and safety guidelines for the nail salon community and processes for licensing, inspections, violations and appeals.

2. Youth members have surveyed 200 peers to gather data on PCPs used and have completed a media survey to investigate the role of advertising in Seventeen Magazine and its influence on PCP usage by Asian girls. Through the peer survey we discovered the most popular PCP and cosmetic products used by Asian girls. We will be testing a sample of these products for toxins such as phthalates with a grant partner, Professor Kathy Hammond. As well, POLISH has conducted 30 bilingual Vietnamese/English occupational hazard surveys to investigate workers' knowledge of health and safety protection, perceived protections and risks on the job. Finally, POLISH has recruited and confirmed 6 nail salons to participate in an air-sampling project with grant partner, Professor Kathy Hammond. We are working with another grant partner, Asian Health Services, to recruit the remaining 4 salons for the project.

3. POLISH members have, thus far, identified four interventions to implement. Based on their findings from the PCP media survey, youth members will use media and technology to educate and inform their peers and community about toxins in PCPs. Worker members will explore opportunities to work with Labor Occupational Health Program and the International School of Cosmetology (Oakland, CA) to develop a bilingual Vietnamese/English and updated health and safety curriculum to be taught to cosmetology students. Additionally, worker members have identified the need to address the aches and pains suffered by nail salon workers due to repetitive motions and long hours. They will develop and distribute a bilingual Vietnamese/English nail salon worker yoga manual as a resource to their peers. This manual will be a part of broader handbook for workers on health and safety. In the Spring 2008, worker members will host the first Oakland Community Forum to educate and engage the broader nail salon community.

4. Our lead organizer serves on the steering committee of the California Healthy Nail Salon Collaborative, a group of service, organizing and advocacy groups working to provide occupational health services, research and advocacy for worker rights. Through this collaborative, we share our model, findings and practices with members, including US EPA, Alameda County Public Health Service Agency, Breast Cancer Fund, Coalition for Clean Air and the United Food and Commercial Workers. Lastly in January 2008, we will be sharing our research and intervention model at an API Student Conference at Stanford University to engage other researchers, public health students and activists.

Public Health Impacts

Youth members conducted a survey of 200 Asian girls, between the ages of 14-18, on their use of cosmetics and knowledge of toxins in PCPs. The preliminary findings include:

- 12-years old is the mean age of when Asian girls first start using cosmetics on their own.
 - 31% of those surveyed started using cosmetics between the ages of 9-11.
 - 44% of those surveyed started using cosmetics between the ages of 12-14.
- While the majority was aware that their personal care products might contain toxins, 78% did not know what to use as an alternative.

- The majority of survey participants desired to make healthier choices for themselves but did not believe many choices were available to them at stores in their communities.
- The majority of those surveyed believed companies and government have a responsibility to ensure products are not a health hazard.
- Most popular personal care products include: Pantene ProV Shampoo & Conditioner; Colgate Toothpaste, Victoria Secret lotion & body wash; Chapstick/Carmex.
- Most popular cosmetics include: MAC eyeliner & eye shadow; Victoria Secret lip gloss & perfume. Youth members conducted a media survey of 12 issues of Seventeen Magazine (2006). The preliminary findings include:
 - Approximately one-third of each issue was advertisements and approximately one-half of advertisements were for cosmetics and PCPs.
 - The brands most advertised in Seventeen Magazine (2006) were Neutrogena, Maybelline, Bonny Bell and Sally Hansen.
 - The majority of surveyors wanted to learn more about the products advertised, specifically ingredients and cost.
 - The majority of surveyors wanted to learn if the products contain ingredients that are possible health hazards.
 - All surveyors believed that advertising techniques and packaging used by companies were effective in targeting young women.
 - All surveyors developed a heightened awareness of corporate advertising practices targeting young women and many stated that they “could never look at an advertisement without analyzing it”.
 - All surveyors gained media literacy and advocacy skills and knowledge. Youth members organized an API Youth Conference for 150 Asian girls and boys in the Bay Area. At this conference, youth members educated their peers about the harmful effects of toxins in PCPs. Conference participants were eager to learn about which toxins to beware of and which products contained lower health hazards. Worker members are currently conducting a survey with nail salon workers on occupational health and safety. Preliminary finding include:
 - There is a significant gap between the current health and safety regulations by the BBC and what workers and students are taught in cosmetology school.
 - There is a significant discrepancy of health and safety information communicated within the nail salon community by peers, owners and state inspectors. Nail salon workers are confused about what to follow.
 - 28 out of 30 surveys indicate that workers have never received updated information on health safety from the BBC.

Policy Impacts

Participated in national effort with the Campaign for Safe Cosmetics and sent in letter of support to pressure OPI to remove the toxins, toluene and formaldehyde, from their nail products. Strongly participated in an Informational Hearing sponsored by Senator Carole Migden to bring government representatives together with community advocates, nail salon workers & owners to testify on issues of health and safety in the nail salon industry.

Publications

Visual map of inspections & appeal process for California(Vietnamese/English)

Format: Outreach material

Date: Ongoing

New fines schedule (Vietnamese/English)

Format: Outreach material

Date: Ongoing

Flyer for Oakland Community Forum for nail salon workers & owners(Vietnamese/English)

Format: Outreach material

Date: Ongoing

“Dangerous Beauty”

Format: 5-minute digital story
Date: August 2007

A look at toxins in personal care products with a reproductive justice lens
Format: Interactive website tool
Date: October 2007

Occupational survey for workers and owners regarding knowledge of health and safety regulations(Vietnamese/English)
Format: Survey
Date: October 2007

6-steps to disinfect a spa chair and non-electrical tools(Vietnamese/English)
Format: Outreach material
Date: October 2007

Worker testimony at Informational Hearing with Senator Carole Migden
Format: Testimony
Date: November 2007

What are Asian girls saying about toxins in personal care products?
Format: Outreach material
Date: November 2007

Contact Information

PI

Eveline Shen, MPH
Executive Director
Asian Communities for Reproductive Justice
Community-Based Organization
310 8th Street, Suite 309
Oakland, California 94607

Collaborator

Katharine Hammond, PhD
UC Berkeley School of Public Health
Environmental Health Sciences Division
140 Earl Warren Hall MS 7360
Berkeley, California 94720-7360

Collaborator

Joann Wong, MPH
Asian Health Services
818 Webster Street
Oakland, California 94607

Work Environment Justice Partnership for Brazilian Immigrants in Massachusetts

Grant Number: 1 R25 ES012588-1

Funded By: NIEHS

Principal Investigator

C. Eduardo Siqueira, University of Massachusetts Lowell

Collaborators

Fausto da Rocha
Executive Director
Brazilian Immigrant Center

Dorcas Grigg-Saito
Chief Executive Officer
Lowell Community Health Center

Marcy Goldstein-Gelb
Executive Director
Massachusetts Coalition for Occupational Safety and Health

Project Aims

1. To collect data on demographics, workplace hazards, immigration, and cultural experiences of Brazilian immigrant workers in Lowell and East Boston.
2. To identify work environment hazards of cleaning houses and commercial businesses, gardening and groundskeeping, food preparation and service in restaurants, as well as of other workplaces perceived as priorities by community members.
3. To develop culturally, linguistically, and literacy appropriate curricula and educational materials to disseminate information on work environment hazards to the Brazilian community. We will use materials already developed by Brazilian union health and safety educators as a potential source for education materials and curricula.
4. To recruit and train a team of peer-trainers/advocates in teaching techniques and methods to educate low-literacy Brazilian immigrant workers in health and safety awareness.
5. To create a team of peer-trainers/advocates to educate Brazilian immigrant workers on work environment hazards and exposures in service sector businesses, in particular but not exclusively, in domestic and commercial cleaning, food preparation and service in restaurants, and gardening and groundskeeping businesses.
6. To design research and policy strategies to minimize occupational health risks associated with Brazilian immigrant worker exposures to job hazards in janitorial and food preparation work, gardening and groundskeeping.
7. To strengthen the partnership among primary health care providers, a community-based organization, and the university, expanding the previous work done by UMass Lowell in environmental justice to include a new work environment justice partnership with the Brazilian community.
8. To evaluate the accomplishments of the partnership and activities implemented over the course of the project with community-based participatory methods.
9. To integrate peer-leaders/advocates in the MassCosh immigrant health and safety network.
10. To facilitate communication between academics, health care providers, community groups and city and state officials interested in the immigration experience of the newcomer Brazilian community.

Project Summary

Partnership for Communication:

The Collaboration for Better Work Environment for Brazilians in Massachusetts, COBWEB or Projeto Parceria in Portuguese, has built a the partnership with original partners- the Lowell Community Health Center, the University of Massachusetts Lowell, the Brazilian Immigrant Center (BIC), and the Massachusetts Coalition for Occupational Safety and Health (MassCOSH). It has also developed new ongoing partnerships with the Occupational Health Surveillance Program of the Massachusetts Department of Public Health, and the New England Regional Office of the Occupational Safety and Health Administration (OSHA).

The joint work of these and other partners has been essential to collect and disseminate information, and to find solutions for a variety of workplace hazards faced by targeted Brazilian immigrant workers in Massachusetts.

The highlights of the project over the four years were:

Assessment:

The project collected six hundred and twenty six surveys that provide information about the working conditions, demographics, and health of Brazilian immigrant workers in Massachusetts. The surveys have been analyzed and results will be available for publication and dissemination in the first semester of 2008.

Project staff has also collected about 150 worker compensation cases and in-depth descriptions of all workplace fatalities of Brazilian workers since 1990. Analyses of this data will be finished by early 2008.

Project staff collaborated with the Occupational Safety and Health Administration's (OSHA) investigation of fatalities of Brazilian workers in the last four years. As a result of the assessments, project staff identified the exposures and causes of death for all fatalities of Brazilian immigrant workers in Massachusetts.

In conjunction with the Principal Investigator of the project Assessing and Controlling Occupational Risks among Immigrants in Somerville, MA (ACOHRIS) David Gute, project COBWEB reviewed the literature on the hazards of house cleaning agents and their impacts on worker health.

Implementation:

Project staff trained close to 350 Brazilian housecleaners and 150 construction workers on workplace safety and health, mostly in Brazilian churches. The construction workers attended the OSHA 10h construction training. In addition, project staff delivered dozens of shorter safety and health awareness presentations that reached approximately 1,000 people. About 800 of those were Brazilian construction workers.

The project held three community breakfasts: one in Lowell and two in Boston- to discuss health, immigration issues, and political participation of Brazilian immigrants in Massachusetts. A total of over 100 Brazilian community leaders, journalists, and city and state officials attended these meetings.

Representatives of MassCOSH, UMass Lowell, and the Occupational Health Surveillance Program of the Mass Department of Public Health trained about ten primary care providers from the Lowell Community Health Center in occupational health and safety in 2005.

Project COBWEB staff together with the Massachusetts Coalition for Occupational Safety and Health (MassCOSH) staff and teenage peer-leaders trained two groups of four Brazilian teen peer-leaders to identify and recognize workplace hazards faced by teenagers, especially violence in retail workplaces. A survey of 70 teenagers who work in such establishments was conducted and results published by the Teens Lead @ Work. The survey report is available at <http://www.masscosh.org/teens.htm>

A group of four Brazilian construction workers are in the final stages of certification as OSHA 10H construction training instructors, following a forty-hour training program jointly conducted by OSHA and project staff. Several of these peer-trainers conducted parts of training sessions of Brazilian construction workers during 2007.

Communication and Dissemination:

Project COBWEB staff conducted over 160 one-hour weekly radio program at the UMass Lowell radio station, and wrote over 150 weekly columns for three ethnic newspapers published in Portuguese and distributed in Massachusetts and the U.S. Staff also participated in the production of the DVD "My Dream Our Reality," filmed by Brazilian immigrants, which addresses the work experience of Brazilian immigrants. One hundred copies of the DVD were distributed to Brazilian community leaders, and U.S Environmental Justice researchers.

Project staff distributed thousands of health and safety materials, brochures, and publications during the 2005, 2006 and 2007 Brazilian Independence Festivals held in Boston. Hundreds of fact sheets were distributed to Brazilian businesses and community members who visit the Lowell Community Health Center and the Brazilian Immigrant Center.

The PI has been interviewed by newspapers in English and Portuguese in Boston and Framingham (Metrowest Daily News). The Wall Street Journal, published a report on Brazilian housecleaner businesses in Framingham, Massachusetts, in its front page. In addition, several major newspapers published in Brazil, such as Folha de São Paulo, O Globo, Correio Braziliense- interviewed project staff and published reports on activities of Project COBWEB.

The British Broadcasting Corporation (BBC) published and broadcast an especial report on the health and safety of Brazilian housecleaners in the Spring of 2006. The media outlets TV Bandeirantes, Radio Eldorado, and CB 21 TV channel aired the report in Brazil. In addition, the report was posted in the Portuguese version of the BBC website.

Project staff participated in three television shows to talk about the health and safety of Brazilian immigrant workers: the "Bate Papo com a Shirley," who is a Brazilian journalist for the local Comcast Cable TV in Stoughton, MA; the Fantástico, which is a famous Sunday show broadcast by TV Globo International, the most watched Brazilian network in the U.S., and the "Eye on You" show, produced by the Lowell Telecommunications Cable.

The PI and project staff presented their work in national and international conferences, such as the American Public Health Association annual meetings and the Latin American Studies Association International Congresses.

A dinner with over one hundred people was held at UMass Lowell on October 2007 to release a community report about the project. Awards were given to Brazilian immigrant workers, community leaders, and journalists for their participation and effort to support the project.

Evaluation

A project evaluation report will be issued in 2008, based on several evaluation sessions held with project staff, and interviews with Brazilian community leaders and project partners.

Public Health Impacts

Project COBWEB partners worked with OSHA Region I to implement the Special Emphasis Program targeting the Granite Construction industry in Massachusetts and New England. This Program resulted from fatalities and injuries of Brazilian immigrant workers in 2005. Project COBWEB staff referred dozens of worker compensation cases to worker compensation attorneys, who have been able to work with the Brazilian Immigrant Center to collect and disseminate information about the types of health and safety violations faced by their clients. Project staff continued to develop bilingual safety alerts for all workplace fatalities of Brazilian workers, in collaboration with the Occupational Surveillance Program of the Massachusetts Department of Public Health. These alerts have become part of the routine epidemiological surveillance conducted by the Occupational Health Program. Project COBWEB actively supported and collaborated in the creation of the Brazilian housecleaner cooperative Green Life, inaugurated in December 2006. Cooperative members developed a new set of green housecleaning products and provide training to other Brazilian housecleaners. The cooperative will celebrate its first anniversary in December 2007. For information on the activities of this cooperative, go to www.verdeamarelo.org/vidaverde Brazilian ethnic media have significantly increased the coverage of occupational health and safety issues affecting Brazilian immigrant workers. The Brazilian Immigrant Center has also become a major source of information for the media, including newspapers, radio and television outlets.

Policy Impacts

Project partners have collaborated with MassCOSH to reform and update the Massachusetts Child Labor law (HB4638) to prohibit teenagers from working alone after 8:00 pm and give the state Attorney General authority to fine employers who put teens at risk. This law passed in 2007. It was the first update of the law in nearly seventy years. Joint work between project partners and other immigrant right's organizations influenced the Mass Department of Industrial Accidents (DIA) to improve enforcement of worker compensation laws in the state. A coalition of immigrant worker organizations has successfully worked with DIA officials to review procedures and guidelines for worker compensation cases involving immigrant workers. The Brazilian Immigrant Center, OSHA Region I, and the Massachusetts Division of Occupational Safety consultation program continue to develop the BIC-OSHA Alliance to improve the safety and health of Brazilian immigrant workers and business owners in Massachusetts.

Publications

The Invisible Enemy
Format: online video
Date: 2007

Project COBWEB website
Format: electronic
Date: 2007

Project COBWEB: A Report on Brazilian Immigrant Workers in Massachusetts.
Format: printed report
Date: 2007

Contact Information

PI

C. Eduardo Siqueira
Assistant Professor
University of Massachusetts Lowell
Researcher
3 Solomont Way, suite 3
Lowell, Massachusetts 01854

Collaborator

Fausto da Rocha
Brazilian Immigrant Center
10 Harvard Avenue, second floor
Allston, Massachusetts 02134

Collaborator

Dorcas Grigg-Saito
Lowell Community Health Center
586 Merrimack St
Lowell, Massachusetts 01854

Collaborator

Marcy Goldstein-Gelb
Massachusetts Coalition for Occupational Safety and Health
42 Charles Street
Dorchester, Massachusetts 02122

South Bronx Environmental Justice Partnership

Grant Number: ES1105-06

Funded By: NIEHS

Principal Investigator

Alvin (Hal) Strelnick, Montefiore Medical Center

Collaborators

Cleo Silver
Acting Executive Director
For a Better Bronx

Juliana Maantay, PhD
Associate Professor
Lehman College

Morri Markowitz, MD
Professor
Albert Einstein College of Medicine

Project Aims

I. SPECIFIC AIMS (4/1/2001-3/31/2005)

The mission and overall goal of the South Bronx Environmental Justice Partnership (SBEJP) is to improve the health of the people who live and work in the South Bronx, beginning with children and pregnant women and expanding to other adults. The Partnership was initially a collaboration between the three founding organizations, the South Bronx Clean Air Coalition (SBCAC), Montefiore Medical Center (MMC), and the Albert Einstein College of Medicine (AECOM), but now includes For A Better Bronx (FABB) and Lehman College and has forged a much stronger affiliation with the NYCDOHMH. The Partnership was established in 2000 with funding from the NIEHS' Environmental Justice Partnerships for Communication program.

The Partnership's specific aims included: (1) formalizing the collaboration between the SBCAC, MMC, and AECOM; (2) developing a community-driven, participatory, environmental health research agenda in the South Bronx informed by on-going dialogue with its scientific and clinical experts; (3) developing a similar environmental health educational agenda for both community residents and health professionals; and (4) planning and implementing environmental health clinical and public health services. Our focus has been on asthma and air quality and on heavy metals (e.g., arsenic, lead, and mercury) and other bioaccumulative toxins (e.g., household pesticides).

II. PROPOSED SPECIFIC AIMS (2005-2009)

Lehman College, a federally-designated minority- and Hispanic-serving institution, formally joins the Partnership with this proposal. FABB, Lehman, and MMC will divide all budget support equally with AECOM contributing its efforts in-kind. Our proposal seeks to address our epidemic of complex, chronic disease through communal environmental rather than individual lifestyle change.

SBEJP seeks to accomplish the following new specific aims:

- I. To strengthen the Partnership and collaboration between AECOM, FABB, Lehman, and Montefiore and promote environmental health education and research at each organization. (Organizational Development)

-
- A. Expand the SBEJP website and link it with its Partners, expand FABB's environmental health library and information center, and develop FABB's website for the public in the South Bronx.
 - B. Assist FABB to develop sufficient administrative, accounting, and research capacity, including not-for-profit incorporation and 501(c)3 status, so that FABB may serve as the lead organization for the Partnership in future grant proposals and the South Bronx community is endowed with these added skills and resources.
 - C. Assist Lehman in developing the environmental health components of its Masters in Public Health degree program and its Department of Environmental, Geographic, and Geologic Sciences and provide their students with community placements in environmental health.
 - D. Strengthen and integrate mutual education and information sharing among SBEJP partners to improve academic-community knowledge, skills building, and mutual understanding; to accelerate the process of technical and research skills transfer to FABB; and to educate professionals at AECOM, Lehman, and MMC about community wisdom and popular epidemiology.
 - E. Recruit additional Community Advisory Board members for AECOM's Institute for Community & Collaborative Health from other South Bronx environmental justice organizations to assure on-going community input and communication and have the Board meet quarterly to provide oversight, guidance, and integration of SBEJP activities with other Bronx health disparities programs and initiatives.
2. To conduct Geographical Information Systems (GIS) environmental health research on cardiovascular disease and diabetes related to air pollution and land use in the Bronx informed by on-going dialogue with its community. (Chronic Disease Prevention and Control)
 - A. Conduct epidemiological and small area analysis research that describes the geographic and spatial relationships (i.e., mapping) between cardiovascular disease hospitalizations and/or registries (e.g., myocardial infarction, arrhythmias, congestive heart failure, and congenital heart defects, etc.) and local stationary and mobile sources of air pollution and other noxious land use (e.g., brownfields, waste transfer stations, etc.) and air sampling data in the Bronx.
 - B. Conduct preliminary GIS studies on diabetes mellitus hospitalizations and their geographic relationship with potential sources of endocrine disruptors, air pollution, noxious land use (e.g., brownfields, waste transfer stations, TRI facilities, etc.), and mitigating features of the built environment (e.g., parks, playgrounds, community gardens, farmers' markets, etc.) in the Bronx.
 - C. Develop culturally- and linguistically-appropriate maps, tables, charts, and risk communication materials, media, and website for community presentations of these GIS findings to promote education and dialogue on appropriate public health and regulatory responses to the research findings in 2A and 2B.
 3. To develop community-prioritized, health promoting improvements in the social and built environments in the South Bronx. (Built Environment and Sustainable Communities)
 - A. Conduct GIS analysis of park and land use distribution comparing North and South Bronx, community boards, health districts, and other boroughs regarding equity and access with assessment of discrepancies between official park and playground designations and actual conditions.
 - B. Sponsor a series of community environmental health and youth forums, town meetings, public hearings, and focus groups to set priorities and goals (e.g., Community Visioning), share parks and playground equity analysis (3A above), and identify specific community-driven action projects for improving the social and built environment in the South Bronx.
-

- C. Develop and implement two selected community-prioritized demonstration projects (3B above) in the built environment (e.g., community or roof-top gardens, tree planting, and/or solar heating, etc.) in collaboration with interested housing, community development, youth, and other organizations.
- D. Develop and implement two model code enforcement and mitigation initiatives for improving the environment in the South Bronx (e.g., air, land use, water purity, noise, sanitation, transportation, and/or housing public policy).
- E. Develop a community-based, culturally-appropriate project to health promotion and chronic disease prevention by increasing the availability and consumption of healthy foods and produce (e.g., farmers' markets, community-supported agriculture, voucher incentives, cooking classes, etc.) and access to and use of safe settings for physical exercise and recreation.

Project Summary

I. Organizational Development: FABB received its 501(c)3 approval from New York State. FABB led a coalition of food justice organizations in submitting its first on-line electronic grant application to the USDA's Community Food Project program. The coalition included SBEJP and the More Gardens Fund, La Familia Verde Garden Coalition, Taqwa Community Farm, and South Bronx Food Coop. These organizations have formed the Bronx Food Justice Coalition that also includes the Bronx Food Systems Network, Bronx GreenUP, FoodChange, Green Thumb, and Just Food among others. These organizations overlap with the Community Food Assessment Coalition in Community Board I. With support from Americorps and a Community-Supported Agriculture grant, FABB has been able to add two new staff members. FABB received a grant from the New York City Council for environmental education of pregnant women to prevent infant mortality, a consequence of its testimony in Bronx-based hearings by the City Council in early 2006. FABB also received grants from the Susan G. Komen Foundation in partnership with the Bronx Health Link to conduct wellness workshops and environmental education for South Bronx women with breast cancer and from the Union Square Fund in partnership with WEACTION for the Rosa Parks Diesel School Bus campaign to reduce school bus idling. Carlos Alicea represented FABB in Toronto in April 2007 when Albert Einstein's Institute for Community and Collaborative Health received the Community-Campus Partnership for Health Award which recognizes exemplary community-academic partnerships. Marian Feinberg chaired the New York City Asthma Partnership's Environment Committee (and, thus, also served on its Steering Committee) in 2006 and continued as a committee member in 2007.

Dr. Markowitz was promoted to Chief of the Metabolism Section of the Department of Pediatrics and Children's Hospital at Montefiore.

Professor Maantay developed a new graduate course, PHE 702, entitled "Environmental Health and GISc," which was cross-listed with GEH 232, "Medical Geography" for undergraduates, and EES 799904, "Environmental Health and GISc" for Environmental Engineering Science students at the CUNY Graduate Center. The course enrolled 4 undergraduate, 11 MPH, and 5 PhD students. She is also developing a new Masters program in Geographic Information Science, Engineering, and Technology with City College and additional graduate-level courses for Lehman's new Masters in Public Health and GISc Certificate program. Professor Maantay is also a Co-Investigator for a NIH-funded study on health disparities, entitled "The Impact of Fast Food, Supermarkets & Parks on Obesity and Diabetes in New York City."

Public Health Impacts

Integrated Pest Management (IPM) and Green Cleaning--Through the Environment Committee of the New York City Asthma Partnership (NYCAP), a position paper on was adopted by NYCAP (which is coordinated by the New York City Department of Health and Mental Hygiene-NYCDOHMH), which led to two pilot projects in IPM in Harlem and the South Bronx. Advocacy for these efforts and other school-based environmental initiatives were held with the Deputy Chancellor for Finance and Administration for the NYC Department of Education and Director of the Office of School Health for the NYCDOHMH. Clean School Bus Initiatives: With pressure from

environmental justice and children's health organizations New York City has enacted Local Law 42 to reduce diesel emissions from school bus idling. FABB received funding (with WEACTION) to lead the Rosa Parks Diesel School Bus campaign to educate, advocate, implement, and enforce Local Law 42. PlaNYC 2030: SEBJP and other community advocates met with the Campaign for New York's Future at the NYCDOHMH through NYCAP to discuss New York City's efforts to develop a sustainable and more livable city. Air quality and congestion pricing proposals were discussed and the Manhattan-centric transportation and air quality proposals challenged. The New York State Legislature has established a commission that is currently holding public hearings in order to determine if the city should pursue available federal funding for congestion pricing. Food Policy and Food Justice (NYC): SBEJP and FABB were part of the grassroots and professional movement that pressured Mayor Bloomberg to establish an office and name the city's first Food Policy Coordinator, who then held a series of public discussions with food and hunger advocates. The Food Policy Coordinator wrote a letter of support for Bronx CREED's NIH grant renewal, and Bronx CREED and SBEJP supported NYC's successful application for a 2-year planning grant from the W.K. Kellogg Foundation for developing improved access to healthy food across the city. The Campaign for Bronx Health, led by the BxDPHO and Public Health Association of NYC, will be the vehicle for the Kellogg-supported planning process. Food Policy and Food Justice (NYS): New York Governor Elliot Spitzer also signed an executive order establishing a New York State Council on Food Policy, which will coordinate state agriculture policy and promote availability of fresh, nutritious, and affordable food for all New Yorkers. The Council, chaired by State Agriculture Commissioner Patrick Hooker, will also look at ways to increase sales of New York agricultural products to New York consumers, with a special emphasis on expanding the consumer market for organic food. Breast Cancer and the Environment: Through the Breast Cancer Working Group of the Collaborative on Health and the Environment, a

Policy Impacts

Integrated Pest Management (IPM) and Green Cleaning: Active in NYC Advisory Committee of the New York Healthy Schools Network, NYCAP Schools and Environment Committees, and External Advisory Committee for Columbia University's Center for Children's Environmental Health. Presentation at Cardozo School of Law, Clean School Bus Initiatives: Active in NYCAP Schools and Environment Committees and Rosa Parks Diesel School Bus campaign for implementation and enforcement of Local Law 42, the Clean School Bus Act. (See above.) PlaNYC 2030 and Air Quality: Testified at NYC City Council hearings on waste management. Preparing testimony for New York State legislative commission on congestion pricing. (See above.) Food Policy and Food Justice: Working in collaboration with Community Food Assessment Coalition (Community Board 1), Bronx Food Justice Coalition, and Campaign for Bronx Health on changing New York City school food purchasing policy, distribution of NYCDOHMH Breast Cancer and the Environment: As noted above, the Infant Mortality Initiative: Workshops with pregnant women at WIC Centers, prenatal clinics, and schools on having healthier babies through reducing pollution and improving nutrition in the home, including smoking cessation, lead poisoning prevention, IPM, greener cleaning, mercury awareness, home safety, and fresh produce availability.

Publications

Alicea CR. In Vieques the Struggle Continues/ En Vieques la lucha sigue. El Diario OPINIION
Format: Newspaper
Date: April 18, 2007

Alicea CR. Plan 2030: Too much about nothing/ El plan 2030: mucho ruido, pocas nueces. El Diario OPINIION -
Format: Newspaper
Date: April 27, 2007

Alicea CR. Not everything label green is environmentally acceptable/Green no es siempre acceptable. El Diario OPINIION
Format: Newspaper
Date: May 8, 2007

Alicea CR. After 20 years of struggle for Environmental Justice/ Tras 20 años de lucha por justicia ambiental. El Diario OPINIION

Format: Newspaper

Date: May 22, 2007

Maantay JA. Asthma and air pollution in the Bronx: Methodological and data considerations in using GIS for environmental justice, population health, and geographical information science. *Health & Place*. March 2007;13:32-56. Special issue: Linking Population Health: Critical Theory and Geographic Information Science. Originally published on-line, November 24, 2005.

Format: Academic Journal

Date: March 2007

Maantay JA. Book Review of *Power, Justice, and the Environment: A Critical Appraisal of the Environmental Justice Movement*. Pellow DN, Brulle RJ, eds. Cambridge, MA: MIT Press, 2005. *Urban Geography* 2006;27(2):198-200.

Format: Academic Journal

Date: 2006

Maantay J, Ziegler, J. *GIS for the Urban Environment*. Redlands, CA: Environmental Systems Research Institute Press, 2006.

Format: Textbook

Date: August 2006

Maantay JA. Book Review of “*Power, Justice, and the Environment: A Critical Appraisal of the Environmental Justice Movement.*” Pellow DN, Brulle RJ, eds. Cambridge, MA: MIT Press, 2005. *Urban Geography* 2006;27(2):198-200.

Format: Academic Journal

Date: 2006

Maantay JA, Maroko A. Perfecting the denominator: Developing a cadastral-based expert dasymetric system (CEDS) in New York City. Association of American Geographers annual meeting, San Francisco, CA. p. 402 (abstract)

Format: Academic meeting proceedings

Date: 2006

Maantay JA, Maroko A, Hermann C. Mapping population distribution in the urban environment: The cadastral-based expert dasymetric system (CEDS). *Cartography and Geographic Information Science*. Special Issue: “*Cartography 2007: Reflections, Status, and Prediction*” In press, 2007.

Format: Academic Journal

Date: 2007

Maantay JA, Strelnick AH. Geographic information systems, environmental justice, and health disparities: The need for an interdisciplinary approach to study asthma and air pollution in the Bronx, New York City. In Freudenberg N, ed. *Interdisciplinary Urban Health Research*. San Francisco: Jossey-Bass (in press)

Format: Book chapter

Date: 2008

Markowitz, M.E.: Lead Poisoning. In: *Nelson Textbook of Pediatrics* 18th edition, R.E. Behrman, R. M. Kliegman, A.M Arvin, Eds., W.B.Saunders Company Philadelphia, 2006

Format: Textbook chapter

Date: 2006

Contact Information**PI**

Alvin (Hal) Strelnick, MD
Professor
Montefiore Medical Center
Healthcare Provider
Department of Family & Social Medicine/Montefiore Medical Center
3544 Jerome Avenue
Bronx, New York 10467

Collaborator

Cleo Silver
For a Better Bronx
199 Lincoln Avenue
Suite 214
Bronx, New York 10454

Collaborator

Juliana Maantay, PhD
Lehman College
Dept. of Environmental Geography & Geology, Lehman College
250 Bedford Park Boulevard West
Bronx, New York 10468

Collaborator

Morri Markowitz, MD
Albert Einstein College of Medicine
Department of Pediatrics
111 East 210th Street
Bronx, New York 10467

Communities Organized against Asthma and Lead (COAL)

Grant Number: R25 ES012595

Funded By: NIEHS

Principal Investigator

Jonathan B. Ward Jr., University of Texas Medical Branch

Collaborators

Tina Garcia
Director
Demadres a Madres

Rosemary Lopez
Director
Casa de Amigos Health Center. Harris County Hospital District

Project Aims

1. Develop a collaborative partnership among the cooperating institutions to address the problems of a low income predominantly Hispanic neighborhood near downtown Houston resulting from exposure to lead (primarily from paint) and biological and chemical agents that can cause or exacerbate asthma.
2. Establish interactive communications with the neighborhood using theatrical events and traditional forms of information to ascertain local knowledge of the community, to further educate the community about these environmental health hazards.
3. Train and equip members of the community organization, Demadres a Madres to conduct home assessments for identifying sources of exposure to asthma triggers and lead and for UTMB to analyze samples for the presence of these agents.
4. Educate parents about environmental health hazards, teach them how to minimize risks from exposure and provide follow-up.
5. Work with Casas d'Amigos Health Center to develop population-based data on the incidence and geographical location of asthma and lead exposures.
6. Work with the Environmental Justice Program at Texas Southern University School of Law to identify issues that may need to be addressed by developing and advocating changes in health policy

Project Summary

HEALTHY HOME SURVEY. Project COAL is now in the extension year. The aims 1-4 were largely completed by the end of the third and fourth year of the project. Project COAL is a partnership between DeMadres a Madres (DMAM), a private non-profit community service center in Houston, TX, Casa deAmigos, the Harris County Hospital District Clinic serving the same area as DMAM, and investigators from the NIEHS Toxicology Center at the University of Texas Medical Branch at Galveston. The community served by the project a predominantly low-income, Hispanic area just north of the central business district of Houston called the near Northside. This area was developed in its current configuration starting in the 1920's. Almost all of the residential structures pre-date 1978.

The community intervention consisted of surveys of homes in the community to evaluate them for the presence of lead and asthma triggers. The King County, Washington Health Homes survey was used as the model for the survey. We developed and added a module to assess the probability that lead was present in the homes. The survey consisted of an interview with a designated adult in the household, usually the mother, and an observational walk through to look for evidence of potential exposures. Environmental sampling was performed to provide data on lead and potential asthma triggers in the home. The presence of lead was assessed from window sill dust wipes and paint chips by atomic absorption spectroscopy. Air quality was measured at several locations in the homes to determine levels of nitrogen oxides, carbon monoxide and humidity using a portable monitor (Young

Environmental Services, Vancouver, BC). Dust samples were collected with a vacuum device to measure the presence of antigens from dust mites, mold, dog, cat, and cockroaches by ELISA assay. Air was analyzed for mold spores and pollen by collection on a filter and microscopic analysis by a specialized commercial laboratory. Community outreach workers at DMAM were trained to conduct the survey as well as to collect samples for analysis. Surveyors educated residents about potential risks that were observed as the initial visit was conducted. Following the completion of sample analysis the home surveyors made a return visit to the home to present the findings and provide additional and reinforcing education about possible hazards in the home. A cooperative agreement with the Childhood Lead Poisoning Prevention Program of the Houston Department of Health was established, with IRB approval, providing a mechanism to refer residents whose homes exceeded the EPA guidelines for lead for follow-up assistance. Over the course of the study 275 homes received an initial assessment. Of these 161 received a second visit for presentation of testing results and 45 more for education only without results. Because of the rapid turnover of some residents in the community, 42 families that participated in the study were lost to follow-up.

The results of the home surveys determined that about 25% of the homes were contaminated with lead dust or paint chips in concentrations exceeding the EPA standards of 250 $\mu\text{g}/\text{ft}^2$ for dust or 5,000 ppm for paint. Residents were instructed on practical routine methods for cleaning to remove as much lead as possible from surfaces and practices to avoid exposure from paint chips or soil. The survey collected information about parental work that should bring lead into the homes and information was also collected about the importation of candies, herbal preparations, pottery and other materials that might contain lead. This was an issue because many of the residents were first or second generation immigrants from Mexico or Central America. To determine the likelihood that children in the homes were affected by asthma a brief symptom survey was conducted. In addition to asking whether a child had been diagnosed with asthma the survey inquired about symptoms of asthma. We found that the rate of reported diagnosed asthma was 9.4%. However, the reported prevalence of symptoms was about 22 in children who were not reported to have a diagnosis of asthma. Thus the prevalence of asthma is a concern that is being addressed in our public health follow-up.

COMMUNITY COMMUNICATION. DMAM is a well established and trusted provider of social services to young families in its community. Among other services it provides a monthly food bank to over 300 families in the community. The traffic to the center greatly facilitated communication with the community and recruiting for the healthy homes survey. To communicate more widely with the community we used a novel approach based on an interactive theater technique. This process was directed by our Co-investigator, John Sullivan using a methodology called Forum Theater, that was developed by Brazilian play right Augusto Boal. A theater troupe, El Teatro Lucha por Salud, was assembled from within the local community, trained, and developed short plays based on environmental themes that were relevant to the community and the project. The plays were presented to local audiences in gatherings at schools and churches. After viewing three presentations the audience members are invited to choose one for further work and then are invited to replace an actor to play a specific role in a way that they view as being more appropriate. This generates a dialogue with the audience that reveals their knowledge and points of view. A key finding from this process was that the culture of this Hispanic community viewed asthma as a personal weakness rather than a physical disease. This finding led to our use of a symptom questionnaire which identified a much larger problem with respiratory disease in the community than the typical diagnostic question did. We also used the same technique in an evaluation of the project within DMAM and our other collaborator, which we have described in a recent publication. We are in the final stages of developing a video presentation about Project COAL which will be distributed on a DVD to stakeholders in Houston. The theater process was very effective in both raising the visibility of Project COAL in the community, educating the community about environmental hazards related to lead exposure and asthma, and in educating the investigators about community knowledge and attitudes. We anticipate that the video presentation will be an effective tool in directing policy initiatives toward environmental health needs in this community, as well as further educating the community.

ASSESSMENT OF DATA. The home surveys generated a large volume of data which we are in the process of analyzing in detail. We anticipate that the results of the analysis, beyond the primary results discussed above will be useful in the development of programs to address lead exposure on a larger scale and in making respiratory health a greater priority for health care delivery in this area. A final survey has been developed to assess the long term impact of the Healthy Homes Survey on the education of participants regarding lead and asthma triggers and their housekeeping practices to maintain a healthier environment in their homes. A sample of 30 homes will be assessed

by interview. Homes in which significant problems were identified will be selected along with a set of homes with no significant problems.

Public Health Impacts

As noted in earlier reports the identification of the high prevalence of lead exposure in homes was not surprising, given the age and condition of most homes in the community. These findings did help the City of Houston Childhood Lead Poisoning Prevention Program to obtain a \$750,000 grant to conduct an expanded home survey program beyond the scope of Project COAL. As a direct follow-up to Project COAL the partners organized a wider collaboration including Neuva Casa de Amigos (City of Houston Health Clinic) and the Houston Independent School District to develop a CBPR proposal to identify children with elevated blood lead levels or respiratory illness to be followed in an organized case management system. This proposal, titled Children at Risk: Evaluating and Addressing Toxic Exposures (CREATE), was submitted in response to the NIEHS CBPR RFA. The Health Department has contacted DMAM to negotiate an arrangement in which it would serve as a service center in the Northside community. This would greatly increase the capacity of DMAM to serve its community and results in large part from the work it was able to do through Project COAL. The issues raised by the findings of Project COAL do not occur in isolation but are integral to the cumulative effects of poverty and minority/immigrant status on housing quality, nutrition, occupational hazards, lifestyle, and access to health care. The issues of lead exposure and respiratory health will have to be considered in the context of these cumulative factors and the general environmental conditions that exist in the neighborhood. In addition, Houston is aggressively acting to improve air quality, a chronic environmental problem created by a combination of traffic congestions and industrial emissions. Dr. Ward, PI of Project COAL has been heavily involved in several initiatives to address air quality in the Houston region.

Policy Impacts

In the final year of Project COAL we are developing documents both for publication in the scientific literature and for local policy makers to describe the findings of the study. We will be meeting with the City of Houston officials and City Council members to present our findings and will also meet with community organizations and neighborhood groups. We will also use the video presentation to make the public more widely aware of the problems identified in Project COAL. In addition to the additional funding already been raised for discovery of lead contamination and abatement in housing we anticipate that our work will impact policies directed at health care for this population and will generally support the City of Houston's initiatives to improve air quality for all citizens of the region.

Publications

Project Coal: Communities organized against Asthma and Lead was prepared with sections in English and Spanish to explain the goals and design of Project COAL. It was presented at the EJ/CBPR meeting in Albuquerque and at the NIEHS Center Directors Meeting in Research Triangle Park, NC

Format: Poster

Date: June 2004

Project Coal: Communities organized against Asthma and Lead was prepared with sections in English and Spanish to explain the goals and design of Project COAL. It was presented at the EJ/CBPR meeting in Albuquerque and at the NIEHS Center Directors Meeting in Research Triangle Park, NC

Format: Poster

Date: October 2004

Evaluating Transformative Effects of Participation in Theatre of the Oppressed (TO): An Analytic Process Using Grounded Theory Procedures. Pedagogy & Theatre of the Oppressed Conference / Los Angeles CA May, 2005.

Format: Presentation

Date: May 2005

A poster presentation of project COAL was made at the annual EJ/CBR grantee meeting in Talkeetna, AK.

Format: Poster

Date: September 2005

A poster presentation of the project will be made at the grantee meeting in Research Triangle Park, NC. In addition, a presentation of the project with emphasis in the significance of the role of the community partner will be presented as part of a panel discussion at the meeting.

Format: Presentation

Date: October 2006

A presentation about Project COAL was made at the American Public Health Association meeting in Boston

Format: Presentation

Date: November 2006

A seminar describing the project and its results was made for the NIEHS Center at the University of Texas Medical Branch in October, 2006.

Format: Presentation

Date: October 2006

Research as a pretext for action: using Theatre of the Oppressed to anchor & integrate community-based research collaborations

John Sullivan- Sealy Center for Environmental Health & Medicine (NIEHS) @ UTMB / Galveston TX

Maria Murillo- de Madres a Madres; Project COAL (Communities Organized Against Asthma & Lead /

Comunidades organizadas contra la asma y el plomo); coordinator / co-facilitator: El Teatro Lucha por la Salud del

Barrio, Bryan Parras- TEJAS: Texas Environmental Justice Advocacy Service; Nuestra Palabra: Latino Writers

Having Their Say; member: El Teatro Lucha por la Salud del Barrio. 12th Annual International Conference on

Pedagogy & Theatre of the Oppressed. Chapel Hill, NC

Format: Presentation

Date: May, 2006

Sullivan, J, Murillo, M, Petronella, S Brooks, EG, Rudkin, L, Ward, JB, Jr. Using Participatory Action Research Methods to Troubleshoot Communications Issues in an NIEHS Environmental Justice Partnerships Project Using Participatory Action Research Methods to Troubleshoot Communications Issues in an NIEHS Environmental Justice Partnerships Project. Texas Public Health Association Journal. 59(2):46-48, 2007.

Format: Publication

Date: October, 2007

Sullivan, J, Petronella, S, Brooks, EG, Murillo, M, Primeau, L, Ward, JB, Jr. Theatre of the Oppressed & Environmental Justice Communities a Transformational Therapy for the Body Politic. Journal of Health Psychology, in press

Format: Publication

Date: March 2008

Contact Information

PI

Jonathan B. Ward Jr.
Professor and Director
University of Texas Medical Branch
Researcher
301 University Blvd.
Department of Preventive Medicine and Community Health
Galveston, Texas 77555-1110

Collaborator

Tina Garcia
Demadres a Madres
1108 Paschall St.
Houston, Texas 77009

Collaborator

Rosemary Lopez
Casa de Amigos Health Center. Harris County Hospital District
1615 North Main Street
Houston, Texas 77009-8525

Land Use, Environmental Justice, and Children's Health

Grant Number: 5 R25 ES010010

Funded By: NIEHS

Principal Investigator

Joy Williams, Environmental Health Coalition

Collaborators

Ed Avol

Professor, Environmental Health Division
Southern California Environmental Health Sciences Center

Nancy Bryant Wallis

Regional Director, Special Populations and Satellite Operations
Family Health Centers of San Diego

Project Aims

Goals of the Land Use, Environmental Justice, and Children's Health Project are to:

- Create a long-term working relationship between the community, researchers, and health care providers that is based on respect of the experiences of the community;
- Empower community residents to resolve toxic pollution problems in their neighborhoods;
- Educate the community, with a particular emphasis on youth, concerning the relationships between asthma and air pollution, on proper asthma management, and on available health care services;
- Create a profile on air pollution and respiratory illness, including asthma, in the community;
- Reduce pollution sources within and adjacent to the communities;
- Improve the quality of life in the communities by creating new community plans and policies;
- Improve health care provider skills in assessing and preventing environmental exposures.

Project Summary

The grant has three major focus areas:

1. Environmental Health Research
2. Community Education
3. Community Empowerment and Policy Change

Land Use, Environmental Justice, and Children's Health focuses on air quality, land use, and respiratory health in three adjacent low-income communities of color in the Barrio Logan community of San Diego, the west side of National City, and the west side of Chula Vista. Children living in these areas are currently exposed to mobile and industrial air emissions that increase their risk of respiratory impairment. Plans for development in these areas could increase these risks, or, if done with community input, produce more healthful environments for children. EHC and its grant partners are working to promote the principles of environmental justice: promoting precaution, looking at the cumulative impacts of air pollution, and ensuring open and meaningful participation in land use planning issues that affect the health of their families and neighborhoods.

Environmental Health Research

In the Logan community, translation of air quality research into land use policy has continued with major steps forward in getting the community's 'Vision' for land use adopted as the official Community Plan, and to ensure that future development reduces the community's exposure to air toxic contaminants as well as providing affordable housing. EHC was instrumental in obtaining \$1.5 million for the City of San Diego to use for updating the Barrio Logan Community Plan. The update is being developed by a stakeholder group that includes FHCSO, EHC, and community residents who support the "Vision." Using scientific findings and educational presentations provided by SCEHSC, EHC's advocacy efforts succeeded in persuading the Port of San Diego to develop a Clean Ports Plan to reduce diesel emissions from ships, trucks, and related equipment at the cargo terminals of Barrio Logan and National City. Both FHCSO and EHC are represented on the stakeholder group for the Clean Port Plan and our participation is particularly critical in bringing information on diesel particulates and health to the group.

FHCSO is in the third year of its QA/QC process for management of pediatric asthma patients; the process includes systematic assessment of environmental triggers in the homes and communities of patients. In National City and Chula Vista, the asthma Burden of Disease analysis has been completed; the report is final and a fact sheet is in progress. EHC and residents of National City's Old Town had a major victory in October, 2007, when the City Council voted to move forward with the West Side Specific Plan, a community plan update that will provide for freeway and industry buffer zones; will use an amortization process to move autobody shops out of the community; provide affordable housing; and limit new growth to medium-density development as favored by the community. This action ultimately will reduce exposure to emissions of car paint, metals, and solvents for the 1,000 residents of Old Town and schoolchildren at Kimball Elementary.

Research on levels of ultrafine particles near Kimball school, as measured by EHC youth apprentices using SCEHSC's ultrafine particle counters, was presented to the National City Council in April, 2007, when the Council adopted a new ordinance that prohibits diesel trucks from practicing driving near schools. This ordinance was introduced following a tragic incident when a resident of the building adjacent to Momax truck driving school died of acute asthma when truck engines were idling outside his window; Momax is also directly across the street from Kimball. In Chula Vista, computer modeling of the air quality impacts from potential replacement plants -- one 650 MW plant, one 65 MW -- for the South Bay Power Plant was used by EHC to argue successfully against sitting a new, large plant upwind of homes and schools. In spring of 2007, EHC released a report on green energy options to demonstrate how Chula Vista can move to renewable energy choices and reduce emissions of NO_x, PM_{2.5}, and greenhouse gases from fossil fueled power plants. EHC continues to monitor development of a new air toxics health risk study for BFG/Rohr, an aerospace firm that emits hexavalent chromium and is located less than 1,000 feet upwind of homes.

Community Environmental Health Education

In all three NIEHS grant communities, regular meetings of EHC's Community Action Teams (CATs) have been the major vehicle for community empowerment and education. CAT team members participate in the popular education curricula developed by EHC staff under the SALTA (Salud Ambiental, Lideres Tomando Acción) rubric. SALTA trainings this year included one round of the core SALTA series -- consisting of leadership development skill training -- and issue SALTA series focused on Barrio Logan land use, National City land use, Clean Ports, and Energy. Members of the both Logan and National City CAT teams will participate in the Moving Forward conference on Trade, the Environment, and Health in Carson, California, later this month. EHC is a co-sponsor of the conference and will lead the session on Land Use Decisions and Public Health. Two college-age youth apprentices are now on staff at EHC; their primary project is education and outreach to high school and college youth on toxic air pollution and other environmental justice issues. The apprentices are utilizing information from the air toxics curriculum developed by Andrea Hricko at SCEHSC in their presentations. Education for asthma patients and their families continues at FHCSO. Education for health care providers continues; the Burden of Disease fact sheet continues to be distributed to all health care providers at FHCSO and incorporated into orientation packets for new employees. FHCSO also plans an educational seminar for physicians, to be given at the next available physicians' forum. Information on the health impacts of goods movement and on asthma hospitalization rates has been shared with the San Diego Asthma Coalition and will be featured in the annual

Asthma Report Card. Advocacy for land use changes in National City has provided opportunities for education on air toxics and health for the Superintendent of Schools and the Fire Chief of this city.

Community Empowerment and Policy Change.

Our community action teams (CATs) as described above, comprise our primary method for community empowerment for our work on land use, air quality, and children's health. EHC's Toxic Free Neighborhoods campaign (Logan area), National City Land Use campaign (National City), and Clean Bay Campaign (Chula Vista) each has a CAT that consists of committed community residents who meet twice a month and form the backbone of EHC's organizing base in the community. The CAT members have received training in the environmental health issues, and provide leadership for both EHC and their communities. The Logan CAT is focused on an intensive effort to educate and involve the entire community, both residents and business owners, in the process to gain acceptance of their community vision. The National City CAT is working on land use issues along with Clean Ports advocacy. The Chula Vista CAT is focused on the future of the South Bay Power Plant and related land use issues on the bay front in Chula Vista. Our policy change efforts are directed at city, regional, and state levels. At the city level, the policy issues include land use and (South Bay) energy development; at the regional level, Clean Ports, transportation, and energy development are key issues; and at the state level, advocacy for community perspectives on implementation of new rulemaking on goods movement emission sources and greenhouse gas emissions have become our key focus areas for policy change.

Public Health Impacts

1. EHC staff and National City community residents persuaded National City council to adopt an ordinance that prevents diesel trucks from practicing driving maneuvers in front of schools. This will reduce exposure to diesel exhaust for students and staff at Kimball Elementary School, which has a truck driving school across the street.
2. Previous council actions to amortize auto body shops out of the neighborhood will reduce exposure to car paints, metals, and solvents.
3. Land use planning in both Barrio Logan and National City will ultimately result in better separation of homes and schools from freeways and industries, reducing exposure to air pollutants; additional public health benefits of updated land use plans include more affordable and mold-free housing and more park space.
4. EHC staff and residents won another victory in National City in 2006 when the City Council adopted a National City "Healthy Homes" ordinance. The ordinance requires annual inspections of all rental properties in the city, ensuring that rental units are free of mold, moisture problems, and similar asthma triggers.
5. EHC staff and CAT members in Chula Vista have achieved a consensus of residents and decision makers that the antiquated and polluting South Bay Power Plant must be shut down and not replaced in its current location. The struggle now is to make this happen as soon as possible, and to develop support for clean energy alternatives. These actions will reduce exposure to power plant emissions (NO_x, PM_{2.5}) at homes and schools in the South Bay region. The public health co-benefits are almost innumerable and include precedent-setting energy policies, clean energy jobs, conservation of scarce natural gas supplies, reduced perceptions of blight in the neighborhoods surrounding the power plant, increased recreational space and access to San Diego Bay for Chula Vista residents.
6. The Family Health Centers of San Diego continues to improve its management of asthma, as the QA/QC project instigated by grant partner Lisa Duncan of FHCSA goes forward.

Policy Impacts

1. Environmental Justice and Air Quality policies, and a required 1000-foot buffer zone for hazardous waste facilities, have been incorporated into the draft General Plan Update for the City of Chula Vista, as recommended by EHC. This planning document will guide land use planning in this city for the next 10 to 20 years.
2. The California Air Resources Board has adopted an Airborne Toxics Control Measure (ATCM) for metal plating operations that will, for the first time, prohibit new hexavalent chromium plating facilities within

residential or mixed use zones, as well as more stringent control measures for existing facilities. EHC successfully advocated for new requirements for HEPA filters for smaller platers, and other improvements to protect communities from hexavalent chromium emissions.

3. The California Environmental Protection Agency's Environmental Justice Advisory Committee, co-chaired for 3 years by Diane Takvorian of EHC, has continued to pioneer the implementation of its environmental justice policies through a series of pilot projects throughout California. The pilot projects are developing innovative methods for cumulative exposure assessment, precautionary approaches, and community participation in environmental regulation.
4. The City of National City has adopted ordinances and policies to guide land use in the Old Town or west side of National City. These include phasing out auto body shops in this community; adopting new land use plans that will provide freeway and industry buffers and provide new affordable housing; and a ban on diesel truck driving near schools.
5. Successful advocacy by EHC and SCEHSC has persuaded the Port of San Diego to develop a Clean Ports Plan that will provide funding, plans, and methods to reduce diesel impacts from goods movement in San Diego communities.
6. Successful advocacy by EHC, SCEHSC, and FHCSO has resulted in a new planning process for the Barrio Logan community of San Diego; the result will be an updated community plan that will guide development of this community for the next 10-20 years, and will provide better separation of homes and schools from industry and freeways.

Publications

Burden of Disease fact sheet for health care providers, produced by Nancy Bryant Wallis of Family Health Centers of San Diego, utilizing information on the respiratory health burden attributable to particulate pollution in the Logan community, developed by Dr. Rob McConnell of SCEHSC, with layout and production by SCEHSC.

Format: Hard copy

Date: Spring, 2005

SALTA (Salud Ambiental, Latinas Tomando Accion) curriculum on land use for the National City community, using a promotora model of popular education.

Format: Hard copy

Date: Spring, 2005

Barrio Logan Vision map and land use principles, developed to express the community's vision for its future, incorporating environmental health concerns and responding to the community's needs for affordable housing, more park space, and better air quality. The map is reproduced in Environmental Health Perspectives, Vol. 113, Number 5, May 2005, p.A-314.

Format: Hard copy, electronic

Date: Fall, 2004.

Green Energy Options, a report that demonstrates how the existing South Bay Power Plant in Chula Vista, California, could be replaced with clean energy options.

Format: Hard copy

Date: Spring, 2007

Contact Information

PI

Joy Williams
Research Director
Environmental Health Coalition
Community-Based Organization
Environmental Health Coalition
401 Mile of Cars Way, Suite 310
National City, California 91950

Collaborator

Ed Avol
Southern California Environmental Health Sciences Center
Department of Environmental Medicine, Keck School of Medicine, University of Southern California
1540 Alcazar Street
Los Angeles, California 90089-9013

Collaborator

Nancy Bryant Wallis
Family Health Centers of San Diego
823 Gateway Center Way
San Diego, California 92102-4541

Community Health and Environmental Reawakening

Grant Number: R25 ES008206

Funded By: NIEHS

Principal Investigator

Steve Wing, University of North Carolina

Collaborators

Gary R. Grant
Executive Director
Concerned Citizens of Tillery

Kathy Knight
Director
Area Wide Health Committee

Beth Velde and Peggy Wittman
Associate Professors
East Carolina University

Project Aims

- I. Community education, outreach and networking
 - environmental health and environmental justice workshops and consultations will be held in communities in the coastal plain and piedmont regions of NC;
 - s the state-wide NC Environmental Justice Network that is currently a project of CCT will be strengthened and expanded as an independent non-profit organization;
 - annual Environmental Justice Summits will be organized to promote education, networking, community driven environmental health research and policy change;
 - the community-led CHER Community Research Advisory Committee will be supported to help protect communities participating as partners in environmental health research;
2. The Tillery People's Clinic
 - AWHC will expand the Tillery People's Clinic through its partnership with the East Carolina University (ECU) Department of Occupational Therapy to include occupational therapy and other allied health services to provide health education and screening for environmental health hazards;
 - special clinics will provide screening for environmental and occupational health problems prevalent in particular populations, such as repetitive motion injuries (meat packing, textile industries) and childhood lead exposure;
 - medical and allied health profession students, while providing services in the People's Clinic, will learn about environmental racism and environmental health conditions in rural African American communities ;
 - faculty and students staffing clinics will provide environmental health education, wellness education, and environmental modifications to promote participation in activities;
3. Community-driven environmental health research
 - an environmental health needs assessment will be conducted in Tillery and surrounding areas for the purpose of improving outreach, services and surveillance at the People's Clinic;
 - statewide analyses will be conducted to evaluate whether race and income are associated with landfill siting decisions and presence of landfills, and a conceptual model will be developed to evaluate health impacts of landfills as part of the built environment;

- a graduate level class at UNC-SPH, Community Driven Epidemiology and Environmental Justice, will bring community members and medical providers together with student researchers to conduct community driven and community based participatory research.
- graduate level occupational therapy students will investigate relationships of the built and natural environment to levels of home activity and community participation.

CHER will help to educate students, medical professionals and scientists about the importance of community trust in providing patient care and conducting valid environmental health research. Screening in regular and special People's clinics will provide a basis for case studies and surveillance of environmental disease in a population that has high risk but low access and utilization of medical care. A graduate level course that has led to seven master's research papers since 2000 will be enriched and expanded to promote new research. These activities will help rural southern communities in their struggles for environmental justice by improving technical skills and access to information, by building leadership experience and community alliances that cross race and class divisions, and by improving collaboration between community groups, environmental health scientists and health professionals.

Project Summary

Project Introduction

The CHER project is framed within a justice paradigm. The partnership between the Area Wide Health Committee (AWHC), Concerned Citizens of Tillery (CCT), East Carolina University (ECU) (Department of Occupational Therapy), and University of North Carolina (UNC) (Department of Epidemiology) uses a collaborative model to address issues related to social, occupational and environmental justice. Team members meet monthly to discuss issues, report on activities, and evaluate project aims and plans. One team member takes responsibility for publishing an agenda for the meeting and all team members contribute topics for the agenda. Team members take turns hosting and leading the meetings and minutes are kept and circulated. The minutes serve as a method of tracking progress and team members' contributions. The project summaries and annual grant reports are written by all members, with the PI taking responsibility for compiling the individual team members' reports and submitting to NIEHS. The team serves as an example of the strength of collaborative teams in addressing complex issues related to health and the environment.

Community Outreach, Education, and Networking

Concerned Citizens of Tillery continues to work for equality and justice as communities are targeted for polluting industries that interrupt, disturb and destroy health, communities and their ways of life. With the philosophy "We Make the Difference," CCT has stepped up to the plate and assisted communities and organizations across the state.

CHER partners held ten CHER partners meetings. CHER partners also traveled multiple times to seven counties over the course of a year to attend meetings and help organize people to address the impacts of hog CAFOs, landfills and access to basic amenities such as water and sewer. CHER members also traveled to the Pee Dee River communities in Dillon, South Carolina to address the issue of hog CAFOs coming into this Native American, African American and White rural community.

CHER and one of its projects, NCEJN, held the 9th Environmental Justice Summit in October 2007 entitled "Head 'em Up - Move 'em Out: Landfills & Hogs." More than 125 community members, elected officials, researchers and students attended and participated in scientific presentations, workshops, and plenary sessions. National environmental justice leaders Robert Bullard and Beverly Wright presented findings from the recent United Church of Christ Report. Research presentations included work conducted by CHER investigators as well as international EJ issues. A highlight of the summit was a Youth Summit for students ages 6 through 18.

Five NCEJN quarterly meetings were held during the past 12 months in five counties. The meetings bring groups and individuals together from across the state to discuss and act on items that impact communities suffering from

environmental injustices. More than 250 people attended these meetings bringing the issues of environmental justice to the forefront of several local newspapers for the first time.

CHER and NCEJN were instrumental in producing two DVDs: “the Rest of the Story” and “The Nan Freeland Tribute.” The DVDs were distributed in 2007. In addition, CCT and the Duke University School of Documentary Studies produced a documentary film on the historic Tillery Resettlement Farm and the activism of the Concerned Citizens of Tillery entitled “We Shall Not Be Moved: A History of the Tillery Resettlement.” The film showcases CCT’s efforts for Black land retention and the struggle against environmental racism and injustice. CHER is also helping to produce another DVD in conjunction with The Exchange Project at the University of North Carolina at Chapel Hill’s School of Public Health entitled “Voices for Justice: It Takes All of Us.”

CHER organized community members and addressed the independent National Commission on Industrial Farm Animal Production formed to conduct a comprehensive, fact-based and balanced examination of key aspects of the farm animal industry (<http://www.ncifap.org/about/>), coordinated through the Johns Hopkins University Center for a Livable Future. Through their public testimony and an invited meeting with members of the Commission, which included a viewing of the video documentary “. . . the Rest of the Story,” residents affected by swine CAFOs were able to make their voices heard in an important national policy arena.

This past summer, AWHC supported the 17th Summer Youth Empowerment Camp. Overall, camp was a great success. Each camper learned a great deal about his or her identity, healthy eating choices, writing, math, science, and social and environmental justice. One of the highlights of the camp was a nutritional session with a dietitian from Greenville via the Telemedicine network. Youth interacted by seeing, listening and participating in a Q & A session. The other highlight was that the campers, with the help of a local farmer from Tillery, NC, learned how to plant a garden located on the Tillery Community Center property. They were educated on the importance of organic farming and the role it plays in the betterment of the environment.

The Rural Health Group, a network of clinics in Halifax and Northampton counties, invited AWHC to participate in the Health Outreach and Patient Education (HOPE) project, the health education component of the Rural Health Group. Doris Davis, director of the AWHC, served on the Advisory Committee. In the HOPE project AWHC partners with other clinics to bring breast cancer awareness to women and men and help provide avenues for financial assistance.

In the spring semester of 2007 CHER sponsored another offering of a graduate level course in the Department of Epidemiology at UNC, “Community-Driven Epidemiology and Environmental Justice.” The class included 13 students from several departments in the schools of public health and medicine. Steve Wing (PI) served as lead instructor, and CCT led the planning community presentations that formed the basis for student work on problem-solving and applied research. Gary Grant (CCT co-PI) provided an overview of EJ issues in the region, and Naeema Muhammad, CHER’s lead community organizer, facilitated community presentations to the class. The class helps community members develop presentation and communication skills and helps students learn about EJ and the conduct of community-driven research as a vehicle to support improvements in public health through popular movements for social and environmental justice.

The Tillery People’s Clinic

The Tillery People’s Clinic is an example of health entrepreneurship and demonstrates the importance of maintaining health services in the communities where people live.

The Area Wide Health Committee’s partnership with the East Carolina University (ECU) Department of Occupation Therapy continues to be fruitful. In 2007, ECU Department of Occupational Therapy provided home health services including home safety assessments, home modifications, and individualized occupational therapy interventions. At the People’s Clinic, occupational therapy services included a wellness program directed at preventing falls through exercise, adapted equipment, and education. ECU Social Work Department provided case management, health education, consultation and assistance with Clinic promotion. The Clinic continued monthly sessions with a physician in attendance. Together Social Work, Occupational Therapy and the People’s Clinic physician saw 107 people in the past year.

AWHC and the People's Clinic provide field work opportunities to ECU social work students. The experience that the students gain in a rural health setting is invaluable. One graduate student stated that she had the opportunity to learn and grow and was exposed to national models of interdisciplinary collaboration, activism and community participatory research and left renewed, inspired, and infused with enthusiasm and confidence.

AWHC has completed and submitted the application for a determination for tax exempt status under section 501 (c) (3).

The People's Clinic now has a fully functional telehealth facility. Telehealth is an innovative tool used to bring health care and health education to rural communities. It is the practice of medicine at a distance using videoconferencing, computer, and communications technologies. Through funding from the Golden Leaf Foundation, telehealth equipment was purchased and installed in the People's Clinic in Tillery. Using this equipment, a physician at the ECU Brody School of Medicine's Telehealth Center is able to examine and communicate with patients at the People's Clinic in Tillery.

AWHC hired a part-time, on-site Rural Telemedicine Coordinator (RTC) using funding from the Golden Leaf Foundation. The RTC sets up appointments for patients with the physician, completes records, and transmits billing information to the Telehealth Center in Greenville, NC. The RTC also facilitates exams and consultations by being in the exam room in Tillery with the patient. The RTC is also a Registered Nurse, which allows the People's Clinic to offer additional clinical services, including blood pressure and glucose monitoring.

A Telemedicine Open House was held in April 2007 at the People's Clinic to introduce the Halifax County communities to the Telemedicine Project. The event was well attended by local and state elected officials, health professionals and community members.

Telehealth project staff meet with members of county agencies at the Clinic to exchange information on the referral process for receiving patients at the clinic to be seen by healthcare specialists at the ECU Brody School of Medicine Telehealth Center. This meeting allows the agencies to see first-hand how the technology works by interacting with staff at the Telehealth Center via the telemedicine monitor. This project also provides education on different health subjects of interest to professionals, patients and other interested groups.

Community-Driven Environmental Health Research

On March 3 & 4, 2006, a workshop was held to discuss a plan for investigating whether health concerns of local residents are associated with exposure to land applied sewage sludge near their homes. In attendance were community members from CCT, Carolina Concerned Citizens, the Biosolids Information Group, Clean Water for North Carolina, the Commonwealth Coalition, and Loudun Neighbors Against Toxic Sludge (NATS). Also participating were researchers from the University of North Carolina at Chapel Hill, the Virginia Institute of Marine Sciences, Cornell University, Boston University School of Public Health, East Carolina University, the NC Division of Public Health and others. Drawing on information shared at the workshop in 2006, UNC and CCT prepared and submitted a proposal to the National Institutes of Health for funding to conduct research on the local health impacts of land application of sewage sludge. In September 2007, UNC received a notice of award from NIH to conduct the proposed research over the next five years.

As a continuation of the environmental health needs assessment conducted in Tillery, NC and completed by ECU in 2006, research on the ethnography of falls was conducted using focus groups and community and home assessments. A manuscript is in preparation. ECU is also conducting phenomenological study on the meaning of health entrepreneurship and its relationship to environmental justice is ongoing. The relationship of environmental, occupational and social justice has been explored within and between the grant team members. One manuscript is in press at the time of this summary and a second under review.

Jennifer Norton completed her doctoral dissertation, "Environmental injustice, public health and solid waste facilities in North Carolina," which was supported by CHER. Jennifer investigated issues at the intersection of several contemporary public health concerns: epidemiology of the built environment, environmental justice, and

health disparities. Her hypotheses arose from concerns expressed in low income communities of color that they were bearing a disproportionate burden of landfills, and that these facilities would have negative impacts on their health. In preparation of her proposal, Jennifer not only reviewed the scholarly literature related to her topic and relevant epidemiologic methods; she attended public meetings and investigated proposals to site landfills in Greene and Wake Counties using existing data from public and legal proceedings. Her dissertation drew on these case studies as well as research in environmental epidemiology, environmental justice, the built environment, and relevant quantitative methods. Her dissertation was recognized for its novelty, creativity, and public health significance, receiving the annual dissertation award from the UNC Department of Epidemiology and nomination for the School of Public Health dissertation award. Her findings were reported in an article in *Environmental Health Perspectives*.

Public Health Impacts

Weekly Open Minded Senior meetings continue to draw approximately 65 Tillery-area residents. OMS is supported by CCT and AWHC. These gatherings provide healthy nutrition, tai chi and other exercises, environmental health education, and emotional wellness. The Tillery People's Clinic continues to provide needed services in a rural community with no other source of clinical services.

Policy Impacts

Industrial hog production

CHER, CCT and the NCEJN organized a coalition to address the "hog moratorium" instituted by the North Carolina General Assembly in 1997. CCT and other community and environmental groups pushed for the General Assembly to halt the construction of open cesspools and the use of "lagoon" spray fields and to manage the massive quantities of hog waste created by the state's roughly 2500 industrial hog operations that are concentrated in the Black Belt Region of NC. In the past year, the coalition met with legislators to educate them on the drafting of new and better policies that would benefit the environment, health and well-being of communities and residents living near industrial hog operations. The coalition held monthly meetings through July 2007 when the NC General Assembly adjourned. Partners within the coalition were Concerned Citizens of Tillery (CCT), North Carolina Environmental Justice Network (NCEJN), Environmental Defense (ED), the Rural Empowerment Association for Community Help (REACH), the Waterkeepers Alliance, Duplin Environmental Health Awareness Project (DEHAP), and the Association for a Responsible Swine Industry (ARSI). CHER provided technical assistance, education about environmental health issues, and community organizing support for this coalition. The coalition influenced several bills introduced into the legislature in ways that reflected increased education and awareness about environmental health issues. Although the most protective features of these bills did not survive the legislative process, the General Assembly did pass a bill that bans the construction of any new hog operations that use the lagoon and spray field system for waste management. The upcoming report from National Commission on Industrial Farm Animal Production, which will reflect testimony from NC community members as well results of research and policy recommendations from the Iowa conference in which CHER researchers participated, "Environmental Health Impacts of Concentrated Animal Feeding Operations: Anticipating Hazards "Searching for Solutions," may help to advance future policy initiatives.

Solid waste

The issue of impacts of solid waste disposal on environmental health and justice has demonstrated CHER's ability to link research, education and community organizing. In July, 2006, stimulated by a grassroots movement that CHER and NCEJN helped to organize, the NC General Assembly placed a moratorium on new landfills in NC. The legislature also established a Joint Select Committee on Environmental Justice to consider the burden that such facilities place on populations with low levels of political power and high disease burdens. Steve Wing testified at the Committee's first hearing on October 23, 2006, providing an overview of EJ issues and results of Jennifer Norton's dissertation showing a disproportionate burden of solid waste facilities in communities of color and low income communities in NC. On November 9, 2006, the legislative committee brought Jennifer from New

York City, where she is an epidemiologist with the NYC Department of Health, to testify on her dissertation research. Jennifer also presented her findings to community groups, researchers and policy makers at the 2006 NC Environmental Justice Summit. In 2007 the General Assembly adopted new legislation to alleviate impacts of solid waste facilities on environmental health, and established stricter requirements for assessing disproportionate impacts on communities of color and low income populations.

Publications

Mirabelli MC, Wing S, Marshall SW, Wilcosky TC. Asthma symptoms among adolescents attending public schools located near confined swine feeding operations. *Pediatrics*, 118:e66-e75, 2006.

Mirabelli MC, Wing S. Proximity to pulp and paper mills and wheezing symptoms among adolescents in North Carolina. *Environmental Research*, 102: 96-100, 2006.

Morland K, Diez Roux A, Wing S. Supermarkets, Other Food Stores and Obesity: the Atherosclerosis Risk in Communities Study. *American Journal of Preventive Medicine*, 30:333-339, 2006.

Mirabelli MC, Wing S, Marshall SW, Wilcosky TC. Race, poverty, and potential exposure of middle school students to air emissions from confined swine feeding operations. *Environmental Health Perspectives*, 114:591-596, 2006.

Format:

Date: 2006

Grant G, Wing S. The North Carolina Hog Roundtable. *Race, Poverty & the Environment*, Winter, 2004.

Avery R, Wing S, Marshall S, Schiffman S. Perceived odor from industrial hog operations and suppression of mucosal immune function in nearby residents. *Archives of Environmental Health*, 2004, in press.

Wing S. Whose epidemiology, whose health? In: Navarro V, Muntaner C (eds.) *Political and Economic Determinants of Population Health and Well-Being*. Amityville, NY: Baywood, 2004. (from *International Journal of Health Services*, 1998)

Format:

Date: 2004

Wing S. Objectivity and ethics in environmental health science. *Environmental Health Perspectives*, 111:1809-1818, 2003.

Morland K, Wing S, Diez Roux A. The contextual effect of the local food environment on residents' diets: the Atherosclerosis Risk in Communities Study. *American Journal of Public Health*, 92:1761-1767, 2002.

Farquhar S, Wing S. Methodological and ethical considerations in community-driven environmental justice research: Two case studies from rural North Carolina. In: Minkler M, and Wallerstein N (eds.) *Community Based Participatory Research for Health*. Jossey-Bass, 2002.

Wilson S, Howell F, Wing S, Sobsey M. Environmental injustice and the Mississippi hog industry. *Environmental Health Perspectives*, 110 (Supplement 2):195-201, 2002.

Wing S. Social responsibility and research ethics in community driven studies of industrialized hog production. *Environmental Health Perspectives*, 110:437-444, 2002.

Wing S, Freedman S, Band L. The potential impact of flooding on confined animal feeding operations in eastern North Carolina. *Environmental Health Perspectives*, 110:387-391, 2002.

Morland K, Wing S, Diez Roux A, Poole C. Neighborhood characteristics associated with the location of food stores and food service places. *American Journal of Preventive Medicine*, 22:23-29, 2002.

Format:

Date: 2002-2003

Cole D, Todd L, Wing S. Concentrated swine feeding operations and public health: A review of occupational and community health effects. *Environmental Health Perspectives*, 108:685-699, 2000.

Wing, S. Community-driven epidemiology and environmental justice: A course at The University of North Carolina. *The Networker: Newsletter of the Science and Environmental Health Network* 5(5), October, 2000, www.sehn.org.

St. George DM, Wing SB, Lewis DL. Geographic and temporal patterns of toxic industrial chemicals released in North Carolina, 1988-1994. *North Carolina Medical Journal*, 61:396-400, 2000.

Wing S, Cole D, Grant G. Environmental injustice in North Carolina's hog industry. *Environmental Health Perspectives*, 108:225-231, 2000.

Wing S, Wolf S. Intensive livestock operations, health, and quality of life among eastern North Carolina residents. *Environmental Health Perspectives*, 108:233-238, 2000.

Format:

Date: 2000

Santana VS, Loomis D, Wing S. Bahia-Carolina program in environmental and occupational health: A North-South partnership for workplace and environmental justice. *International Journal of Occupational and Environmental Health*, 5:218-222, 1999.

Format:

Date: 1999

Viel JF, Wing S, Hoffmann W. Environmental epidemiology, public health advocacy, and policy. In: Lawson A, Biggeri A, Boehning D, Lesaffre E, Viel JF, Bertollini R (eds.), *Disease Mapping and Risk Assessment for Public Health*, Chichester, England: Wiley & Sons, 1998.

Wing S. Whose epidemiology, whose health? *International Journal of Health Services*, 28:241-252, 1998.

Format:

Date: 1998

Wing S, Grant G, Green M, Stewart C. Community based collaboration for environmental justice: South-east Halifax environmental reawakening. *Environment and Urbanization*, 8:129-140, 1996.

Format:

Date: 1996

CCT Quarterly Newsletters - articles on People's Clinic and Environmental Justice

Format:

Date: 1996-2005

Velde, BP, Wittman, PP, & Mott, V. (2007). Hands-on learning in Tillery. *Journal of Transformative Education*, 5(1). 79-92.

Velde, B.P. (In Press). Too many high sounding words and not enough action: The problems with social, occupational and environmental justice. Jones and Bartlett.

Morland K, Wing S. Food justice and health in communities of color. In: Bullard R (ed.) *Growing Smarter: Achieving Livable Communities, Environmental Justice, and Regional Equity*. Cambridge, MA: MIT Press, 2007.

Resnik DB, Wing S. What can we learn from CHEERS? *American Journal of Public Health*. 97:414-418, 2007.

Heederik D, Sigsgaard T, Thorne PS, Kline JN, Avery R, Banlakke JH, Chrischilles EA, Dosman JA, Duchaine C, Kirkhorn SR, Kulhankova K, Merchant JA. Health effects of airborne exposures from concentrated animal feeding operations. *Environmental Health Perspectives*. 115:298-302, 2007.

Donham K, Wing S, Osterberg D, Flora J, Hodne C, Thu K. Community health and socioeconomic issues surrounding concentrated animal feeding operations. *Environmental Health Perspectives*. 115:317-320, 2007.

Griffith M, Tajik M, Wing S. Patterns of agricultural pesticide use in relation to socioeconomic characteristics of the population in the rural US South. *International Journal of Health Services*. 37:259-277, 2007.

Wing S, Schinasi L. Public health preparedness: Social control or social justice? *South Atlantic Quarterly*. 106:789-804.

Format:

Date: 2007

Wing, S. Environmental justice, science and public health. In: Goehl TJ (ed.) *Essays on the Future of Environmental Health Research: A Tribute to Dr. Kenneth Olden*. Research Triangle Park, NC: National Institute of Environmental Health Sciences, 2005.

Wing, S. Social responsibility and research ethics in community driven studies of industrialized hog production. In: Brugge D, and Hynes HP (eds.) *Community Collaborative Research in Environmental Health: Studies in Science, Advocacy and Ethics*. Oxon, UK: Ashgate, 2005.

Format:

Date: 2005

Contact Information

PI

Steve Wing
Associate Professor
University of North Carolina
Researcher
Department of Epidemiology CB#7435
University of North Carolina
Chapel Hill, North Carolina 27599-7435

Collaborator

Gary R. Grant
Concerned Citizens of Tillery
PO Box 61
Tillery, North Carolina 27887

Collaborator

Kathy Knight
Area Wide Health Committee
PO Box 114
Tillery, North Carolina 27887

Collaborator

Beth Velde and Peggy Wittman
East Carolina University
Department of Occupational Therapy
Greenville, North Carolina 27858-4353

Conference Participants

Participant List

Irma Acevez

SVPEJ-Rio Grande CDC
318 Isleta Blvd. SW
Albuquerque, New Mexico 87105
Phone: 505-217-2473
Email: info@rgcdc.org

Beth Anderson

NIEHS
PO Box 12233
RTP, North Carolina 27709
Phone: 919-541-4481
Email: tainer@niehs.nih.gov

Sherry Baron

NIOSH
4676 Columbia Parkway R-17
Cincinnati, Ohio 45226
Phone: 513-458-7159
Email: sbaron@cdc.gov

Julia Brody

Silent Spring Institute
29 Crafts St.
Newton, Massachusetts 02458
Phone: 617-332-4288
Email: brody@silentspring.org

Phil Brown

Brown University
Box 1916
Department of Sociology
Providence, Rhode Island 02139
Phone: 401-863-2633
Email: phil_brown@brown.edu

Miranda Cajero

University Of New Mexico
MSC 09 5360
I University of New Mexico
Albuquerque, New Mexico 87131
Phone: 505-272-8373
Email: mcajero@salud.unm.edu

Alison Cohen

Brown University
Providence, Rhode Island
Phone: 415-823-4906
Email: Alison_Cohen@brown.edu

Crystal Adams

Brown University
184 Elmgrove Ave.
Providence, Rhode Island 02906
Phone: 401-533-8530
Email: crystal_adams@brown.edu

Andrea Barbosa

UMASS Lowell
93 Mount Vernon St
Lowell, Massachusetts 01854
Phone: 978-996-8282
Email: andrea.gouveia@uol.com.br

Richard Bordowitz

Mount Sinai School Of Medicine
1 Gustave L. Levy Place
New York, New York 10029
Phone: 212-241-7323
Email: richard.bordowitz@mssm.edu

Aluki Brower

Alaska Community Action On Toxics
505 West Northern Lights, Suite 205
Anchorage, Alaska 99503
Phone: 907-222-7714
Email: aluki@akaction.org

John Bruce

Southside/Dodson Avenue Community Health Centers
100 East 37th Street
Chattanooga, Tennessee 37410
Phone: 423-778-2760
Email: john.bruce@erlanger.org

Lourdes Carrillo

Western NC Workers Center
P.O. box 2242
N Wilkesboro, North Carolina 28659
Phone: 336-902-0291
Email: lcarrillous@yahoo.com

Mary Collins

University Of Central Florida Sociology
482 Autumn Oaks Place
Lake Mary, Florida 32746
Phone: 407-729-7925
Email: marybowen@mac.com

Gwen Collman

National Institute Of Environmental Health Sciences
P.O. Box 12233 (EC-21)
Research Triangle Park, North Carolina 27709-2233
Phone: 919-541-4980
Email: collman@niehs.nih.gov

Carolyn Crump

University Of North Carolina
CB # 7506, Dept. HBHE
Chapel Hill, North Carolina 27599-7506
Phone: 919-966-5598
Email: Carolyn_Crump@unc.edu

Kimberly Davis

University Of Tennessee
Institute for a Secure & Sustainable Environment
Suite 311 Conference Center Building
Knoxville, Tennessee 37996-4134
Phone: 865-974-1847
Email: kdavis17@utk.edu

Jeremy DeGroat

DiNEH Project
PO Box 179
Crownpoint, New Mexico 87313
Phone: 505-786-7581
Email: jrdg3@yahoo.com

Robin Dodson

Silent Spring Institute
29 Crafts Street
Newton, Massachusetts 02458
Phone: 617-332-4288
Email: dodson@silentspring.org

Mallery Downs

University Of New Mexico
MSC 09 5360
1 University of New Mexico
Albuquerque, New Mexico 87131
Phone: 505-272-1374
Email: mdowns@salud.unm.edu

Sarah Dunagan

Silent Spring Institute
29 Crafts Street
Newton, Massachusetts 06458
Phone: 617-332-4288 x28
Email: dunagan@silentspring.org

Matthew Cross-Guillén

Bernalillo County
111 Union Square SE Ste. 300
Albuquerque, New Mexico 87102
Phone: 505-314-0324
Email: matthewc@bernco.gov

Fausto Da Rocha

Brazilian Immigrant Center
14 Harvard Avenue -2nd floor
Allston, Massachusetts 02134
Phone: 617-783-8001 ext.7
Email: fausto@braziliancenter.org

Doris T Davis

Area Wide Health Committee
PO Box 114
Tillery, North Carolina 27887
Phone: 252-826-2234
Email: awhci@aol.com

Jamie DeLemos

Tufts University
200 College Ave
Anderson Hall
Medford, Massachusetts 02155
Phone: 978-897-2502
Email: jamie.delemos@tufts.edu

Julio Dominguez

SVPEJ-Rio Grande CDC
318 Isleta Blvd. SW
Albuquerque, New Mexico 87105
Phone: 505-217-2743
Email: julio_dominguez1@yahoo.com

Timothy Downs

Clark University
950 Main Street
Worcester, MA 01610
Phone: 508-421-3814
Email: TDowns@clarku.edu

William Elwood

CSR
6701 Rockledge Drive
MSC7770
Bethesda, Maryland 20892-7770
Phone: 301-435-1503
Email: elwoodwi@csr.nih.gov

Marian Feinberg

For A Better Bronx
199 Lincoln Ave Suite 214
Bronx, New York 10454
Phone: 718-292-4344
Email: marian.fabb@earthlink.net

Rebecca Gasior Altman

Brown University, Department Of Sociology
101 Madison Ave
Arlington , Massachusetts 02474
Phone: 617-240-2793
Email: Rebecca_Altman@brown.edu

Falice Graham-Haire

Alton Park Developent Corp/UTK
701 Hooker Rd
Chattanooga , Tennessee 37410
Phone: 423-635-6580
Email: falinchatt@yahoo.com

David M. Gute

Tufts University
200 College Avenue
Dept. of Civil and Environmental Engineering
Medford, Massachusetts 02155
Phone: 617-627-3452
Email: david.gute@tufts.edu

Salima Jones-Daley

East New York Food Co-op
419 New Lots Avenue
Brooklyn, New York 11207
Phone: 646-281-8001
Email: enyfdc@yahoo.com

Jim Krieger

Public Health - Seattle & King County
401 5th Avenue
Suite 1300
Seattle, Washington 98104
Phone: 206-296-6817
Email: james.krieger@kingcounty.gov

Mike Loewe

NIEHS
P.O. Box 12233, MD/EC-22
research triangle park, North Carolina 27709
Phone: 919-541-7823
Email: ml70m@nih.gov

Elisa Garibaldi

Lowell Community Health Center
218 Summer St #2
Malden, Massachusetts
Phone: 781-420-4710
Email: elisa_garibaldi@hotmail.com

Guillermo Gomez

Healthy Schools Campaign
205 W. Monore 4th Floor
Chicago, Illinois 60606
Phone: 312-419-1810
Email: ggomez@healthyschoolscampaign.org

Gary R Grant

Concerned Citizens Of Tillery
PO Box 61
Tillery, , North Carolina 27887
Phone: 252-826-3017
Email: tillery@aol.com

Raymond Hyatt

Tufts University
Friedman School
150 Harrison Avenue
Boston, Massachusetts 02111
Phone: 617-636-3926
Email: raymond.hyatt@tufts.edu

Madeleine Kangsen Scammell

Boston University School Of Public Health
715 Albany St. T2E
Boston, Massachusetts 02118
Phone: 617-638-4454
Email: mls@bu.edu

Dumas Lafontant

Lower Roxbury Coalition
1125 Tremont Street
Boston, Massachusetts 02136
Phone: 617-989-3249
Email: dumas.lafontant@wshc.org

Russell Lopez

Boston University School Of Public Health
715 Albany Street, Talbot 2E
Boston, Massachusetts 02118
Phone: 617-414-1439
Email: rptlopez@bu.edu

Amy Lowman

University Of North Carolina
Dept of Epidemiology
CB#8050
Chapel Hill, North Carolina 27599
Phone: 919-966-1306
Email: amy_lowman@unc.edu

Steven Markowitz

CBNS-Queens College, CUNY
163-03 Horace Harding Expwy
4th Floor
Flushing, New York 11365
Phone: 718-670-4184
Email: smarkowitz@qc.cuny.edu

Margaret Menache

University Of New Mexico
Albuquerque, New Mexico
Phone: 505-917-2345
Email: mmenache@salud.unm.edu

Alvaro Morales

San Francisco Department Of Public Health
1390 Market Street Suite 910
San Francisco, California 94102
Phone: 415-252-3912
Email: alvaro.morales@sfdph.org

Kimberly Morland

Institute, University, Company
One Gustave L. Levy Place, Box 1057
New York, New York 11207
Phone: 212-241-7531
Email: kimberly.morland@mssm.edu

Teddy Nez

Southwest Resreach Information Center
P. O. Box 4524, 105 Standard Dr. SE
Albuquerque, New Mexico 87196
Phone: 505-262-1862
Email: tntnez@yahoo.com

Liam O'Fallon

National Institute Of Environmental Health Sciences
PO Box 12233 (MD EC-21)
79 TW Alexander Drive
Research Triangle Park, North Carolina 27709
Phone: 919-541-7733
Email: ofallon@niehs.nih.gov

Juliana Maantay

City University Of New York, Lehman College
250 Bedford Park Blvd West
Bronx, New York 10468
Phone: 718-960-8574
Email: maantay@aol.com

Antonio Marín

Wake Forest University School Of Medicine
1509 beech Circle
Wilkesboro, North Carolina 28697
Phone: 336-716-2770
Email: tmarin@wfubmc.edu

Pamela Miller

Alaska Community Action On Toxics
505 West Northern Lights, Suite 205
Anchorage, Alaska 99503
Phone: 907-222-7714
Email: pkmiller@akaction.net

Rachel Morello-Frosch

UC Berkeley, School Of Public Health & ESPM
137 Mulford Hall
Berkeley, California 94720-3114
Phone: 510-643-63-58
Email: rmf@nature.berkeley.edu

Naeema Muhammad

Concerned Citizens Of Tillery
PO Box 61
Tillery, North Carolina 27887
Phone: 252-826-3017
Email: tillery@aol.com

Trang Nguyen

Asian Communities For Reproductive Justice
310 8th Street, suite 102
Oakland, California 94607
Phone: 510-434-7900
Email: trang@reproductivejustice.org

Jim Oldham

Regional Environmental Council Of Central
Massachusetts
PO Box 255
Worcester, Massachusetts 01613
Phone: 508-799-9139
Email: ejcoordinator@recworchester.org

Cheryl Osimo

Silent Spring Institute
29 Crafts Street
Newton, Massachusetts
Phone: 508-362-2882
Email: cherylosimo@comcast.net

Dana Ginn Paredes

Asian Communities For Reproductive Justice
310 8th Street, suite 102
Oakland, California 94607
Phone: 510-434-7900
Email: dana@reproductivejustice.org

Carla M. Perez

Communities For A Better Environment
1440 Broadway Ste. 701
Oakland, California 94612
Phone: 510-302-0430 x11
Email: cperez@cbeal.org

Laura Perovich

Silent Spring Institute
29 Crafts St.
Newton, Massachusetts 02458
Phone: 617-332-4288 x15
Email: perovich@silentspring.org

Helen Pinkerton

Southside/Dodson Avenue Community Health Centers
100 East 37th Street
1200 Dodson Avenue
Chattanooga, Tennessee 37410
Phone: 423-778-2834
Email: helen.pinkerton@erlanger.org

Carlos Rios

Oregon State University
3405 NW Orchard Ave. #264
Corvallis, Oregon 97330
Phone: 541-738-2436
Email: riosuric@science.oregonstate.edu

Laurie Ross

Clark University
IDCE
950 Main St
Worcester, Massachusetts 01610
Phone: 508-793-7642
Email: lross@clarku.edu

Bindu Panikkar

Tufts University
21 Chauncy St, #43
Cambridge, Massachusetts 02138
Phone: 617-776-3153
Email: bpanikkar@hotmail.com

Idida Perez

West Town Leadership United
1116 N Kedzie
Chicago, Illinois 60651
Phone: 312-419-1810
Email: idida@aol.com

Lisa Perez-Jacquez

Rio Grande CDC
318 Isleta Blvd. SW
Albuquerque, New Mexico 87105
Phone: 505-217-2473
Email: info@rgcdc.org

Jerry Phelps

NIH/NIEHS/DERT/PAB
79 T.W. Alexander Drive
4401 Bldg.
Research Triangle Park, North Carolina 27709
Phone: 919-541-4259
Email: phelps1@niehs.nih.gov

Alex Pirie

Immigrant Service Providers Group/Health
c/o Somerville Community Corporation
337 Somerville Ave. 2nd Floor
Somerville, Massachusetts 02143
Phone: 617-776-5931 ext. 243
Email: apirie@somervillecdc.org

Mary Rogge

University Of Tennessee
College of Social Work
225 Henson Hall
Knoxville, Tennessee 37996-3333
Phone: 865-974-7500
Email: mrogge@utk.edu

Ruthann Rudel

Silent Spring Institute
29 Crafts Street
Newton, Massachusetts 02458
Phone: 617-332-4288
Email: rudel@silentspring.org

Sekou Siby

ROCN
275 Seventh Avenue, Suite 1703
New York, New York 10001
Phone: 917-538-1227
Email: siby@rocn.org

Lucy Sanchez

SVPEJ-Rio Grande CDC
318 Isleta Blvd. SW
Albuquerque, New Mexico 87105
Phone: 505-217-2473
Email: info@rgcdc.org

Denise Sharify

Neighborhood House
6558 35th SW
Seattle, Washington 98126
Phone: 206-571-5070
Email: denises@nhwa.org

Peggy Shepard

WE ACT For Environmental Justice
271 West 125th St. #308
New York, New York 10027
Phone: 212-961-1000 x301
Email: Berlinda@weact.org

Lauro Silva

SVPEJ-Rio Grande CDC
318 Isleta Blvd. SW
Albuquerque, New Mexico 87105
Phone: 505-217-2473
Email: abogadols@comcast.net

Helen Sinzker

Brazilian Immigrant Center
14 Harvard Avenue 2nd floor
Allston, Massachusetts 02134
Phone: 617-980-6019
Email: helensinzker@hotmail.com

Marina Spitkovskaya

Alternatives For Community And Environment
2181 Washington Street, Suite 301
Roxbury, Massachusetts 02119
Phone: 617-442-3343, ext. 235
Email: Marina@ace-ej.org

Valentin Sanchez

Oregon Law Center
230 W Hayes St
Woodburn, Oregon 97071
Phone: 503-981-0336
Email: valentinssanchez@yahoo.com

Nargess Shadbeh

Oregon Law CE
516 SW Washington, suite 516
Portland, Oregon 97205
Phone: 503-473-8328
Email: nshadbeh@yahoo.com

Katherine Shelley

Tufts University
351 Carmichael Hall
Tufts University
Medford, Massachusetts 02155
Phone: 617-850-2857
Email: katherine.shelley@tufts.edu

Deborah Shields

Massachusetts Breast Cancer Coalition
1419 Hancock St. #202
Quincy, Massachusetts 02169
Phone: 617-376-6222
Email: Dshields@mbcc.org

Cleo Silvers

For A Better Bronx
199 Lincoln Av. Suite 214
Bronx, New York 10454
Phone: 718-292-4344
Email: cleo.silvers@gmail.com

Eduardo Siqueira

UMass Lowell
3 Solomont Way, Suite 3
Lowell, Massachusetts 01854
Phone: 978-934-3147
Email: carlos_siqueira@uml.edu

Hal Strelnick

Montefiore Medical Center
3544 Jerome Avenue
Bronx, New York 10467
Phone: 718-920-2816
Email: hstrelni@montefiore.org

Octavia Taylor

Clark University
950 Main St.
Worcester, Massachusetts 01610
Phone: 508-751-4615
Email: Otaylor@clark.edu

Laurel Turbin

WE ACT For Environmental Justice
271 West 125th St. #308
New York, New York 10027
Phone: 212-961-1000 x301
Email: Berlinda@weact.org

Ismael Vasquez

Community Action Agency Of Somerville
66 Union Square
Suite 104
Somerville, Massachusetts 02143
Phone: 617-623-7370
Email: ismaelcaas@yahoo.com

Brenda Veit

Cheyenne River Sioux Tribe
PO Box 590
S Willow & Airport Road
Eagle Butte, South Dakota 57625
Phone: 605-965-6568
Email: whitewolf_kim@yahoo.com

Beth Velde

East Carolina University
3305 Health Sciences Building
Department of Occupational Therapy
Greenville, North Carolina 27858
Phone: 252-414-0695
Email: veldeb@ecu.edu

Viola Waghii

Alaska Community Action On Toxics
505 West Northern Lights, Suite 205
Anchorage, Alaska 99503
Phone: 907-222-7714
Email: vi@akaction.net

Jonathan Ward

University Of Texas Medical Branch
301 University Blvd.
Department of Preventive Medicine and Community
Health
Galveston, Texas 77555-1110
Phone: 409-772-9109
Email: jward@utmb.edu

Beverly Watkins

WE ACT For Environmental Justice
271 West 125th St. #308
New York, New York 10027
Phone: 212-961-000 x301
Email: Berlinda@weact.org

Kimberly White Wolf

Cheyenne River Sioux Tribe
PO Box 590
S Willow & Airport Road
Eagle Butte, South Dakota 57625
Phone: 605-964-6568
Email: whitewolf_kim@yahoo.com

David Williams

Harvard University
677 Huntington Ave
Boston, MA 02115
Phone: 617-432-6807
Email: dwilliam@hsph.harvard.edu

Wanna Williams-Wright

African American Breast Cancer Task Group
1 Captain Drive #D158
Emeryville, CA 94608
Phone: 510-601-5054
Email: wgrwright@sbcglobal.net

Beverly Wright

Deep South Center for Environmental Justice
2601 Gentilly Blvd
New Orleans, Louisiana 70122
Phone: 504-816-4005
Email: bhwright@aol.com

Joy Williams

Environmental Health Coalition
401 Mile of Cars Way, Ste. 310
National City, California 91950
Phone: 619-474-0220
Email: JoyW@environmentalhealth.org

Steve Wing

University Of North Carolina
Department of Epidemiology
School of Public Health CB#7435
Chapel Hill, North Carolina 27599-7435
Phone: 919-966-7416
Email: steve_wing@unc.edu

Samuel Wilson

NIEHS
P.O. Box 12233
Mail-Drop B2-01
Research Triangle Park, North Carolina 27709
Phone: 919-541-3201
Email: wilson5@niehs.nih.gov

Ami Zota

Silent Spring Institute
29 Crafts Street
Newton, Massachusetts 02458
Phone: 617-332-4288 ext. 12
Email: zota@silentspring.org

