

Boston Puerto Rican Center for Population Health & Health Disparities

The Boston Puerto Rican Center for Population Health and Health Disparities (BPRCPHHD) at Tufts University completed 2008 on target. The field team, led by Project Manager Jackie Mendez, overcame many challenges to push past our participant recruitment goal.

One successful tactic is having a presence at community events. The BPRCPHHD joined *Celebra La Vida Con Salud* (Celebrate a Healthy Life), a national Hispanic health campaign, in 2008. The campaign was created to help educate Hispanics about disease prevention and treatment of major illnesses disproportionately impacting the U.S. Hispanic population. The main objectives of the *Celebra* campaign are to: 1) promote healthy lifestyles and disease prevention; 2) encourage Latinos to take charge of their own health; and 3) celebrate the benefits of good health within families and communities. With our partner, *La Alianza Hispana*, the BPRCPHHD continues to foster relationships in the community.

In addition, collaborations with the University of Puerto Rico have allowed us to compare health disparities between the mainland and island-dwelling Puerto Ricans.

In the past year, the BPRCPHHD investigators published five important articles on genetic findings in the Boston Puerto Rican cohort. Other publication highlights include Xiang Gao's paper "Food Insecurity and Cognitive Function in Puerto Rican Adults" (*AJCN*, Apr. 2009). (See a complete listing of publications on our website: <http://cphhd.hnrc.tufts.edu/news.html>.)



Project coordinator, Jackie Mendez, with a study participant at *Celebra la Vida con Salud*, Boston, MA 2008

The BPRCPHHD investigators presented research findings at several major scientific meetings, including the Wageningen Nutritional Sciences Forum, The Netherlands; the International Society for Environmental Epidemiology; the Gerontological Society of America; the American Society for Bone and Mineral Research; the American Psychological Association; and the Federation of American Societies for Experimental Biology.

Two new Post-Doctoral Research Associates, Josiemer Mattei and Xingwang Ye, joined the BPRCPHHD team in early 2009. Josie completed her doctorate with our team, and we look forward to the continuation of her work with the Center. Xingwang joins us from Shanghai, China, and will investigate the effects of vitamins on cardiovascular risk factors.

Center for Interdisciplinary Health Disparities Research

The Center for Interdisciplinary Health Disparities Research (CIHDR) at University of Chicago ended 2008 with presentations by Director Sarah Gehlert and project leader Suzanne Conzen at the *NIH Summit: The Science of Eliminating Health Disparities*. 2008 marked a challenging but productive year for CIHDR, as investigators focused on bringing the science of disparities research to bear in transforming policy and practice. CIHDR researchers and students presented at several major meetings during 2008 including:

- Society for Epidemiologic Research, (June 2008) with Sarah Gehlert and Blasé Polite presenting as invited speakers to a session on "Unequal Racial/Ethnic Distribution of Breast Cancer Subtypes: Identifying Mechanisms by which Adverse Social Environments May Modulate Genetic Vulnerabilities."
- American Public Health Association (October 2008) with a qualitative analysis of African-American neighborhood-based focus group discussions on health disparities, breast cancer and its treatment by graduate fellow Rebecca Winitzer to the Women's Caucus session on "Cancer and its Impact on Women's Lives and Health," and a transdisciplinary dissemination project to Chicago high schools using CIHDR's peer-produced "Livin' in Your Body 4 Life" video mini-series.

CIHDR investigators published two articles in *Health Affairs* aimed at population level disparities and policy interventions—"Early Life Conditions and Mechanisms of Population Health Vulnerabilities" in 2007 (Alice Furumoto-Dawson, et al.), and "Targeting Health Disparities: A Model Linking Upstream Determinants To Downstream Interventions" in 2008 (Sarah Gehlert, et al.). Other publication highlights include graduate fellows Jason Yee and Gretchen Hermes as lead

authors on publications in *Psychosomatic Medicine* (November 2008) and *Developmental Psychobiology* (May 2008) with Project Leader Martha McClintock on the psychobiology of social environment and isolation in mammary tumor development in experimental animal models. Project Leader Suzanne Conzen coauthored four articles in 2008 on glucocorticoid receptors in breast cancer and their implications in a transgenic mouse model. CIHDR investigators also co-authored six peer-reviewed journal articles in collaborations across the Centers for Population Health and Health Disparities (CPHHD).

Along with other Impact Campaign Partners in metropolitan Chicago, CIHDR and the University's Center for Health and the Social Sciences collaborated in campus-community town hall showings of *Unnatural Causes: Is Inequality Making Us Sick?* CIHDR faculty affiliates

Monica Peek and Rick Kittles moderated discussions with panelists Bryan Echols, Eric Whitaker, and Quentin Young, who responded to the screening and audience questions. CIHDR members Sarah Gehlert and Alice Furumoto-Dawson also continued participation in the Metropolitan Chicago Breast Cancer Task Force to address disparities in breast cancer mortality and improve city-wide breast cancer outcomes.

Looking to the future, Community Engagement Centering on Solutions (CECOS), a program of the University of Chicago Cancer Research Center, led by its director and CIHDR faculty affiliate, Rick Kittles, launched a series of community outreach, education and participation events for predominantly African-American Southside neighborhoods. Its first year was capped with the First Annual Nutrition Knowledge Bowl with six high schools at the DuSable Museum of African American History. The event was co-sponsored by University of Chicago's Institute for Translational Medicine (Sarah Gehlert, Associate Director), with National Cancer Institute support.

Ohio State University Center for Population Health & Health Disparities

The Ohio State University (OSU) CPHHD researchers conducted a panel discussion at the 136th Annual Meeting of the American Public Health Association (APHA) in San Diego, California in October 2008. Electra Paskett was the moderator of the panel entitled "Sex, Drugs, and Poverty and HPV in Appalachia."

The goal of the panel session was to present information collected from the Community Awareness, Resources and Education (CARE) project, which is focused on understanding and addressing the high cervical cancer rates among women living in Appalachia Ohio.

During the session, the panelists described the lack of knowledge and awareness of cervical cancer prevention among women, how the socioeconomic barriers Appalachian women experience impact factors related to cervical cancer prevention, and how two new concepts, the Appalachian self-identity and the CARE cervical cancer risk scale, may

help in future cancer research in this population.

The panel included the following five presentations:

1. Socioeconomic Barriers to Pap Smear Utilization Among Ohio Appalachian Women (Electra D. Paskett, PhD)
2. Appalachian Self-Identity and its Effects on Cervical Cancer Screening and Risky Sexual Behavior Among Women in Ohio Appalachia (Paul Reiter, PhD)
3. Smoking Status and Social and Health-Related Characteristics Among Ohio Appalachian Women (Amy K. Ferketich, PhD)
4. Human Papillomavirus (HPV) Vaccine Knowledge and Attitudes Among Women in Appalachia Ohio (Cecilia DeGraffinreid, MHS, RHIA)
5. Human Papillomavirus (HPV) Vaccine Acceptance in Ohio Appalachia (Mira Katz, PhD)



In addition to the panel presentation, Mira Katz also presented information at the APHA meeting about a colorectal cancer screening media campaign that was conducted in Ohio Appalachia. The presentation entitled "Development, Implementation, and Evaluation of the 'Get Behind Your Health!' Colorectal Cancer Screening Media Campaign" focused on a community-based participatory approach for developing cancer prevention strategies in rural Appalachia Ohio.

Center of Urban and African American Health

CUAAH is Wayne State University's Center for Population Health and Health Disparities. Our productivity in the initial analysis from the data captured in all three projects has been good. The projects include:

1. **The Obesity, Nitric Oxidative Stress and Salt Sensitivity (ONOSS) study**
2. **Women's Healthy Life Style (WHLS)**
3. **Exploring Changes in Experiences and Life-styles (EXCEL)**

Project 1—ONOSS is a study in normotensive African-Americans (AA), which examined the effect of alterations in dietary sodium on blood pressure. Cross-sectional investigations were undertaken to examine the relationships of 25-OH vitamin D levels with: a) blood pressure, b) non-invasively measured vascular function, and c) body composition.

There are many publications from this study in process, including:

- Relationship of Vitamin D and Parathyroid Hormone to Obesity, Body Composition and Fat Distribution in AA
- Dietary Magnesium Intake and Depression in Healthy AA
- The Relationship of Vitamin D and Parathyroid Hormone on Blood Pressure and Non-Invasively Measured Vascular Function in Normotensive AA

There were also multiple poster presentations at various meetings such as the International Society on Hypertension in Blacks (2008), the

Endocrine Society 90th Annual Meeting, and the American College of Cardiology 57th Annual Scientific Session.

Project 2—WHLS determined whether obese AA breast cancer survivors can achieve weight loss depending on the intervention of peer support and/or individualized counseling. In addition, a focus on heart rate variability was assessed during metabolic exercise testing.

Publications from this project include:

- Lactate and Heart Rate Variability Response to Progressive Exercise in Older AA Breast Cancer Survivors
- Ventilatory Threshold and Heart Rate Variability Response to Progressive Exercise in Older Obese AA Breast Cancer Survivors Non-invasive Biomarkers Response to Progressive Exercise in Obese AA Breast Cancer Survivors
- Effect of Weight Loss Program on Ventilatory Parameters in Obese AA Breast Cancer Survivors Project

Project 3—EXCEL is a secondary prevention study in AA cardiac rehabilitation patients that focused on obesity and related lifestyle behaviors.

Publications include:

- The Influence of Relationships on Social Support Interactions among AA Cardiac Rehabilitation Patients
- Correlation of Depression in AA Enrolled in Cardiac Rehabilitation
- Social Networks and Health Behaviors among AA in Cardiac Rehabilitation

A poster presentation was conducted at the 60th Annual Scientific Meeting of the Gerontology Society of America.

Our productivity in the initial analysis from the data captured in all three projects has been good.

UIC Center for Population Health & Health Disparities

The University of Illinois at Chicago (UIC) CPHHD presented at several conferences including:

- *The NIH Summit: The Science of Eliminating Health Disparities in Maryland* (December 2008). Presenters included Richard Barrett, PhD (poster session), Marilyn Willis, BSN, MA (CPHHD Tool Kit poster session); Carol Ferrans, PhD, RN, FAAN (presenter); and Richard Warnecke, PhD (discussant).
- The 136th Annual Meeting of the American Public Health Association in San Diego, CA (October 2008) included presentations from Young Ik Cho, PhD, Timothy P. Johnson, PhD, and Lillian Pickup, RN.

UICCPHHD fellows published the following four articles, which addressed research in community interventions:

- Stolley MR, Sharp LK, Oh A, Schiffer LA. Weight loss intervention for African American breast cancer survivors. *Prevention and Chronic Disease*. 2009;6(1).
- Tejada S, Thompson B, Coronado GD, Martin DP, Heagerty PJ. Celebremos La Salud: a community-based intervention for Hispanic and non-Hispanic White women. *Journal of Community Health*. 2009;34(1):47-55.
- Tejada S, Thompson B, Coronado GD, Martin DP. Predisposing and enabling factors associated with mammography use among Hispanic and non-Hispanic White women. *Journal of Rural Health*. 2009;25(1):85-92.
- Tejada S, Thompson B, Coronado GD, Martin DP. Barriers and facilitators related to mammography use among Hispanic and non-Hispanic White women. *Social Science and Medicine*. 2009;68(5):832-839.

Additionally, one fellow explored cultural conceptions of cancer:

- Kaiser K. The meaning of survivor identity for women with breast cancer. *Social Science and Medicine*. 2008;67:79-87.

Garth Rauscher, PhD, MPH, and Carol Ferrans continue active participation on the Board of Directors of the Metropolitan Chicago Breast Cancer Task Force, which is providing support to community-based organizations in the Chicago area to partner in promoting early detection of breast cancer. Several of our community partners are also members of this board.

Carol Ferrans received funding from the Royal Foundation to produce a DVD addressing myths and cultural barriers to early breast cancer detection among African American women, which was identified in her CPHHD research.



Photo courtesy of Randy Wood @ http://www.flickr.com/photos/wood_ra/2952792530/

University of Pennsylvania's CPHHD

The CPHHD at the University of Pennsylvania studies the causes of prostate cancer disparity in outcomes between men of African and European descent. Our mission is to study the interaction of biological, clinical, behavioral, and environmental factors.

The PROSPEC Study (Prostate Screening: Project to Encourage Communication)

After identifying beliefs and factors that contribute to patient attitudes about prostate cancer screening, investigators will use them to design a role-playing game-based computerized intervention. It is hypothesized that this intervention will improve knowledge, decrease decisional conflict, and increase this type of discussion more effectively than other interventions.

Recent findings:

- Guerra CE, Jacobs SE, Shea JA, Ohr EA, Hornik RC, Frosch D, Holmes JH. (2007). Are Physicians Discussing Prostate Cancer Screening with Their Patients and Why or Why Not? A Pilot Study. *Journal of General Internal Medicine*. 22(7): 901-907.
- Holmes JH, Weaver R, Guerra C, Frosch D, Auten R, Curran M, Shea J, Hornik R: PROSPEC: Using an information technology-supported patient-centered intervention to reduce disparities in prostate cancer screening discussions. American Public Health Association 135th Annual Meeting, Washington, DC, November 2007.

The SCORE Study (Study of Clinical Outcomes, Risk, and Ethnicity)

The interaction of candidate genes with prostate cancer screening practices will determine whether biological factors interact with behavioral factors to influence prostate cancer outcomes. The investigators hypothesize that an understanding of the complex interplay of screening behaviors and genetic variability may identify cases of disparities in prostate cancer outcomes by ethnicity, and be used to more effectively apply prostate cancer prevention and control strategies. Recent findings:

- Lynch SM, Walker AH, Spangler E, Coomes M, Malkowicz SB, Zeigler-Johnson C, Rebbeck TR. Evaluation of MSMB and Prostate Cancer Etiology and Severity in a Multiethnic Population. American Association of Cancer Research 100th Annual Meeting, April 2009.

- Rebbeck TR, Rennert H, Walker AH, Panossian S, Tran T, Walker K, Spangler E, Patacsil-Coomes M, Sachdeva R, Wein AJ, Malkowicz SB, Zeigler-Johnson C. Joint effects of inflammation and androgen metabolism on prostate cancer severity. *International Journal of Cancer* 2008. 123(6):1385-1389.

The PHASE Study (Prostate Cancer Healthcare and Segregation)

Multi-level analysis is used to link individual-level data from national Medicare files to hospital and provider-level data about case volume and teaching status and to community-level data about residential segregation. Analyses will explore the relationship among segregation, race and prostate cancer outcomes, and the pathways by which segregation may affect these outcomes. Recent findings:

- Pollack C, Weissman G, Wong Y, Liao KJ, Montague C, Armstrong K. Using Network Analysis to Examine Referral Patterns for Cancer Care. Society of General Internal Medicine (SGIM) 32nd Annual Meeting May 2009.
- Long JA, Lurie N, Escarce J, Montague C, Armstrong K. Neighborhood Disadvantage, Race, and Prostate Cancer Presentation, Treatment, and Mortality. Society of General Internal Medicine (SGIM) 32nd Annual Meeting May 2009.

The CROSSROADS Study (Community Research on Survivorship Reaching Out to Assess Disparities)

To increase knowledge of the factors that contribute to disparities in quality of life (QOL) among African American and Caucasian prostate cancer patients, this project is designed to compare QOL outcomes among African American and Caucasian men newly diagnosed with prostate cancer and to examine the determinants of ethnic differences in QOL. Recent findings:

- Halbert CH. Sociocultural Context of Prostate Cancer. National Cancer Institute, Division of Cancer Control and Population Sciences, Health Disparities Interest Group, Rockville, MD, July 2007 (invited lecture.)
- Halbert CH, Barg FK, Weathers B, Delmoor E, Coyne J, Wileyto EP, Arocho J, Mahler B, Malkowicz SB. (2007) Differences in cultural values among African American and European American men. *Cancer Control*.14(3): 277-284.

RAND Center for Population Health & Health Disparities

Led by PI Nicole Lurie, MD, MSPH, with co-PI Jose Escarcé, MD, PhD, RAND's CPHHD site consists of four main projects related to the social and physical aspects of the neighborhood environment and health. These projects are tied to one another and to projects in other Centers through our Administrative and Data Cores. The four initial Center projects were launched during the first year of funding; two pilot projects were launched in year 2 and have been completed. Initial goals of RAND's Center included:

- Studying the effects of neighborhoods on health throughout the life cycle and the pathways by which these effects are felt;
- Developing a rich data resource that can be used to enhance understanding of how neighborhoods influence health;
- Developing robust community-based participatory research (CBPR) partnerships within each of the three cities in which RAND is located (Santa Monica, California; the Washington, D.C. area; and Pittsburgh, Pennsylvania);
- Fostering a community of interdisciplinary researchers—particularly biological and social scientists—focused on the social determinants of health, specifically the role of neighborhoods; and
- Informing public policies aimed at improving population health.

RAND has produced more than 70 publications and 16 additional grants. Our team has also made numerous presentations to academic and policy audiences. Building on our first objective, our Center's studies have examined the influence of social and built aspects of neighborhoods on children, adults, and the elderly. With the support of our Data Core, we developed an index of neighborhood socioeconomic status (NSES).

One of our main projects used data from the National Health and Nutrition Examination Survey (NHANES III), and another used data from the Health and Retirement Survey and the Panel Study of Income Dynamics. In each of these projects, NSES has independent effects on health behaviors (diet, sedentary lifestyle, drinking, smoking), a cumulative measure of biologic stress (allostatic load), and the disabling process among the elderly. We also found that early childhood and cumulative exposure to neighborhood disadvantage over the lifecourse explains substantial black-white differences in the development of hypertension. Another interesting finding was that while we found that the effects of NSES on both allostatic load and disability differed by gender, the effects of NSES did not significantly differ by race, once we controlled for individual characteristics.

All four projects examined aspects of the built environment, including population density, sprawl, street connectivity, pollution, and locations of parks, supermarkets, and alcohol outlets. These studies have found that sprawl, street connectivity, and locations of supermarkets and alcohol outlets have important relationships to the outcomes studied.

In addition to the substantive findings of these studies, RAND has made substantial progress in resolving several difficult methodo-

logic problems that plague neighborhood research. Our Center also has discovered new ways to use observation methods for quantifying the amount and types of physical activity in parks and on bicycle paths.

CBPR has been a key component of work that has emanated from the CPHHD. Not only have we build robust relationships with AltaMed, our community partner in Los Angeles, but we have developed important relationships with Hill House, a community-based organization in Pittsburgh dedicated to improving the quality of life for residents of the Hill District. In the District of Columbia, we have partnered with the DC Primary Care Association, an umbrella organization for community clinics and community-based organizations. The relationship with Hill House has enabled us to design and begin studies of a natural experiment regarding the food environment in Pittsburgh, modeled after our study of the reconstruction of parks in Los Angeles. In DC, work that began in our CPHHD enabled us to map the mismatch of need for care and the supply of providers, including primary care providers and cancer specialists. It also led to the finding that only 24% of Medicaid patients with a non-gynecologic, non-urologic cancer diagnosis saw an oncologist in the course of a year. Reasons for this, and the search possible policy solutions will be the subject of one of the proposed pilot studies in this proposal.

One CPHHD project is examining the relationship between neighborhood environments and biologic and behavioral risk factors for cardiovascular disease using data (and in collaboration with researchers) from the Women's Health Initiative. We are also collaborating on a study of neighborhood factors and the health of veterans, with a focus on diabetes and cardiovascular disease. In addition, through an administrative supplement, RAND is working with the UPenn Center to examine NSES and stage of diagnosis of prostate cancer.

Below is a partial list of our most recent publications. Please go to our web site at <http://www.rand.org/health/centers/pophealth/> for a complete publication list.

- Cohen DA. Neurophysiological pathways to obesity: below awareness and beyond individual control. *Diabetes*. 2008;57:1768-73.
- Dubowitz T, Heron M, Bird CE, Lurie N, Finch BK, Basurto-Davila R, Hale L, Escarce JJ. Neighborhood socioeconomic status and fruit and vegetable intake among Whites, Blacks, and Mexican-Americans in the United States. *Am J Clin Nutrition*. June 2008;87(6):1883-91.
- Grafova I, Freedman V, Kumar R, Rogowski J. Neighborhoods and obesity in later life. *Am J Public Health*. November 2008;98(11):2065-71.
- Merkin SS, Basurto-Dávila R, Karlamangla A, Bird CE, Lurie N, Escarce J, Seeman T. Neighborhoods and cumulative biological risk profiles by race/ethnicity in a national sample of U.S. adults: NHANES III. *Ann Epidemiol*. March 2009;19(3):194-201.
- Truong KD, Sturm R. Alcohol environments and disparities in exposure associated with adolescent drinking in California. *Am J Public Health*. Feb 2009;99(2):264-70.

Project Managers Working Group Update

The Project Managers Working Group (PMWG) is writing a manuscript to submit to a journal that focuses on community-based participatory research (CBPR). The paper describes the use of collaborative principles to develop "Managing Human Subjects Research Projects: A Tool Kit for Project Managers," which was created by the PMWG as a resource for research project managers and directors. The article also discusses the lessons learned from across the eight CPHHD sites.

A poster describing the tool kit was presented at the *NIH Summit: The Science of Eliminating Health Disparities*, which was held in December of 2008; the poster generated great enthusiasm among conference participants.

In February 2009, a link to the tool kit was posted in the Community-Based Participatory/Tribal Participa-

tory Research Manual, which is being developed by researchers at the University of Washington for Native communities and academic researchers who are interested in pursuing a research partnership focused on behavioral health.

The tool kit currently is available on the NIH CPHHD website at <http://cancercontrol.cancer.gov/populationhealthcenters/cphhd/toolkit.html> and also on the CPHHD portal. The tool kit includes a form to provide feedback to the writers; instructions on how to submit feedback are on the cover page of the feedback form.

The Project Managers helping to promote the tool kit and write the CBPR manuscript include Norma A. Perez, UTMB; Benita Weathers, UPenn; Marilyn Willis, UIC; and Jackie Mendez, Tufts.

Upcoming Events:

AACR 100th Annual Meeting (April 18-22, 2009, in Denver, CO)—CPHHD is scheduled to present a forum session on "A New Paradigm for Understanding Excess Cancer Risk in Underserved and Minority Populations: The Centers for Population Health and Health Disparities Experience." Electra Paskett will moderate the session; Richard Warnecke will present the overview; and Tim Rebbeck, Sarah Gehlert, and Electra Paskett will discuss their Centers' CPHHD projects.

Current Working Group Leadership:

- *Communication/Website Working Group* – Bridgette Collado
- *Community Assessment & Intervention Working Group* – Chanita Hughes-Halbert
- *Evaluation Working Group* – John Holmes
- *Measurement Working Group* – Tim Rebbeck (Liaison)
- *Multilevel Analysis Paper Working Group* – John Holmes
- *Project Managers Working Group* – Norma Perez and Marilyn Willis
- *Publications/Policies Working Group* – Electra Paskett
- *Renewal Working Group* – Tim Rebbeck
- *Steering Committee* – Sarah Gehlert

Thank you to the Communication/Website Committee members for your hardwork on the newsletter!

Peter Bakun, Bridgette Collado, Anthony DiNuzzo, Alice Furumoto-Dawson, Nanci Hemberger, Amy Hopp, Mira Katz, Doug Post, Katherine Tucker, and Shobha Srinivasan

**CPHHD Competitive
Renewal
Applications are due
May 29th!**