Welcome Remarks
Welcome to our inaugural edition of the Centers for Population Health and Health Disparities newsletter. The Welcome Remarks section describes the purpose of the newsletter and introduces the collaborative efforts of the NIH centers. It highlights the role of the newsletter in facilitating information exchange and the impact of the research on population health and health disparities.

In each issue we will focus on the progress of several projects and these articles will be entitled “In the Spotlight.” In this issue, we have presented two articles as examples of the kinds of materials we will be featuring. There is also a “Upcoming Dates and Events” section which highlights national meetings or conferences relating to population health and health disparities research. Finally, the “Announcements and Awards” section recognizes the achievements of particular Centers, project or investigators, including recent publications.

We will circulate the bi-annual newsletter electronically. Although our primary audience is the research teams included in the eight Centers and the institutions where these centers are housed, please feel free to forward it to any interested audiences. We hope others find this newsletter useful and we look forward to seeing it grow.

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Third Annual Grantees Meeting, May 17-18 2006 at RAND Corporation, Santa Monica, CA

The Annual Grantees Meeting for the Centers of Population Health and Health Disparities was held on May 17-18, 2006. The meeting was well-attended with 105 participants from across the country, representing all 8 centers. The general session was held at RAND Corporation in Santa Monica. Opening remarks were made by Dr. Nicole Lurie (RAND Corporation), Dr. Electra Paskett (Ohio State University), and Dr. Shobha Srivinasan (National Cancer Institute). The sessions were organized into four sessions including Social (led by Dr. Dick Warnecke and Dr. Electra Paskett), Physical (led by Dr. Jim Goodwin and Dr. Nicole Lurie), Biological (led by Dr. John Flack and Dr. Sarah Gehlert) and Behavioral (led by Dr. Katherine Tucker and Dr. Tim Rebbeck). There were also outside speakers from other universities such as Beti Thompson, PhD (Fred Hutchinson Cancer Research Center), Moshe Szyf, PhD (McGill University), Elva Arredondo, PhD (San Diego State University) and Thomas Farley MD (Tulane University). The poster session, hosted by the Community Intervention Working group, concluded the first day.

The second day, research interest groups met and working group chairs presented progress reports including Chanita Hughes-Halbert from the Community Assessment and Intervention group, John Holmes from Evaluation, Peter Bakun from Communication/Website, Benita Weathers from the Project Managers, and Nancy Breen and Steve Meersman from the SES Research interest group. Research questions prompted discussions. Do neighborhoods facilitate or impede development of individuals? Is SES both a cause and an outcome of poor health? What types of resources are needed to change the existing economic and social environment to eliminate health disparities? (What resources have been used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?) To what extent are perceptions of neighborhood stress consistent with measures of neighborhood stress and are they used?)

NIH staff and consultants met for a short time and the conference concluded.
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Announcements & Awards


Recent Publications from RAND:


Recent publications from Tufts/Northeastern:


Bermudez OI, Ribaya-Mercado JD, Talegawkar SA, Tacket KL. Hispanic and non-Hispanic white elders from Massachusetts have different patterns of corticosteroid intake and plasma concentrations. J Nutr 2005;135:1496-1502.


Recent Publications from University of Chicago:


Introduction to the Centers

In September 2003, the National Institutes of Health (NIH) established eight Centers for Population Health and Health Disparities, designed to support cutting-edge research to understand and reduce differences in health outcomes, access and care.

The goal of the Ohio State University Center for Population Health and Health Disparities is to examine why women in Appalachian Ohio have high cervical cancer mortality rates. This goal is accomplished through the work of a multidisciplinary group of investigators who participate in three inter-related projects and 4 supporting cores.

Project 1 - Cervical Cancer Screening among Appalachian Populations. The overall goal of Project 1 is to increase early detection of cervical cancer by increasing the proportion of women in this age group who receive Pap smears at appropriate intervals and return for follow-up care when necessary. The plan is to enroll eligible women from 16 counties of Appalachia Ohio to complete a baseline survey about social, environmental, behavioral, and biological factors related to Pap smear utilization. Those women that are in need of a Pap test are offered the opportunity participate in a study to test the effectiveness of a health education program to promote Pap smear utilization and follow-up for abnormalities.

Project 2 - Tobacco Use and Cessation among Ohio Appalachian Women. The purposes of this project are to: 1) characterize social, behavioral and biological factors of tobacco consumption; and 2) test a scientifically-validated AHRQ smoking cessation intervention among Appalachian women who smoke. In a baseline interview about cervical health, eligible adult female current smokers will be assessed for social, behavioral and biological factors of tobacco use. In addition, a cotinine assessment, a measure of tobacco exposure and nicotinic dependence, will be described in a group of women who have undergone Pap smears as part of another center project. Project 3 - Correlates of Abnormal Pap Smears in Appalachia. The goal of this project is to examine correlates of abnormal Pap smear findings in a case-control study design.

http://www.osuccc.osu.edu/cphhd/

The RAND CPHHD examines how neighborhoods affect health outcomes, including infant mortality, life expectancy, and the development of chronic diseases such as heart disease and asthma. To advance understanding of the links between environment, behavior, and health, the Center has three main projects and has sponsored several pilot studies as well as seminars. Additionally the Center works with an NIA funded study that helps to fund a data center called the data core.

A unique feature of the RAND center is the creation of a data core that combines health, lifestyle and neighborhood characteristics from previously collected national or regional data sets information for mapping to Census defined levels of specificity. The creation of the data core has allowed us to begin exploring how to best use the census definitions to create meaningful analysis of neighborhoods. To make the data core accessible for other researchers we have created a data-sharing plan. Examples of areas of work in the data core include:

- Alternate measures of land use, including available data, comparative advantages and disadvantages of alternative approaches, and limitations of existing data.
- Measures of segregation and their relevance for effects on health.
- Approaches for measuring characteristics of the local environment beyond the immediate census tract, including concentric rings and others.
- Addressing several methodological issues with Census data such as choosing tract definition that the data for all years would be standardized against since census tract definitions change between censuses.

The three ongoing center projects examine the impact of the built environment on mental health, relationships between neighborhood characteristics and allostatic load of individuals and impact of Proposition K on recreational facilities, physical activity, and health outcomes in Los Angeles. The closely affiliated NIA project is examining physical and social aspects of neighborhoods that impact the functional and cognitive aspects of the disabling process in the elderly.

http://www.rand.org/healthcenters/pophealth/
Introduction to the Centers continued...

Projects 1 - Neighborhood and individual effect on stage at diagnosis, Project 2 - Social network effects on breast cancer prognosis and Project 4 - Mediators of ethnic disparity in breast cancer prognosis all depend on rapid case ascertainment of breast cancer patients from all hospitals treating breast cancers that occur in Chicago residents. Projects 1 and 4 began rapid case ascertainment of breast cancer cases in October. These projects use a common interview to collect data on the patients. Project 2, studies patient networks and the data include additional interviews with up to five members of the patient’s social network. Case ascertainment is on-going and interviews are being conducted. Six hundred fourteen cases have been identified, of which 146 have been interviewed. In addition we have begun interviewing social network members. Finally, we have used the pilot funds available through the project and matched by the Vice Chancellor of Research at UIC to develop a blood and tissue bank, managed by the tissue bank core resource established by the UIC Cancer Center and we have been collecting blood. This part of the project also requires medical record reviews which occur at least six months after the patient’s diagnosis. These reviews establish or confirm information from the interview about stage of diagnosis, type of treatment, and the characteristics of the cancer and tissue and with the assessment of stress.

Project 3 - Breast cancer delay in Black, Hispanic and White women, has a separate data collection program which involves interviews with women waiting for diagnosis of a suspicious anomaly in clinics at the University of Illinois and Stroger, Cook County Hospital. This project is part of a collaboration with the breast and cervical cancer program at Stroger and includes in addition to Dr. Ferrans, the physician who directs the breast and cervical cancer program and the surgeon who performs the breast surgery there. Dr. Ferrans’ project has been approved at both hospitals and interviews are under way.

http://epbdhrp.ucic.edu/
Introduction to the Centers continued...

The scientific agenda of the Center for Interdisciplinary Health Disparities Research will evolve as gaps in understanding of population health and health disparities are filled via research projects and increased and improved communication with members of the community, and new gaps are revealed. Its efforts will focus on understanding population differences in the incidence and nature of breast cancer among Black and White women. Black women in the United States and West Africa develop breast cancers that occur at a younger age and are more aggressive and more lethal than do White women of Northern European ancestry (Lyman, Kuderer, Lyman, Cox, Reintgen & Baekey, 1997). Center investigators, in projects that build on and inform one another, will take a multi-level approach to understanding Black-White disparities in breast cancer, using animal studies and investigations of Yoruba women in Nigeria and Black women on the South Side of Chicago.

Project 1 - “Mammary Cancer Risk: Social Isolation and Hypervigilance.” is based on an animal model of social regulation of mammary tumor biology that will enable the identification of psychosocial/gene interactions that account for breast cancer disparities among Black and White women.

Project 2 - “Inactivation of BRCA1 and Breast Cancer Risk in Blacks.” The vast majority of Black women in the United States are of West African origin. This study will examine the molecular characterization of primary patient samples in Nigeria (where 120 million of the 200 million West Africa residents are concentrated) and the South Side of Chicago, with an ultimate aim of developing targeted therapeutic approaches. Striking similarities that have been noted between BRCA1-related breast cancers and breast cancers that occur in young Black women suggest that alterations in the BRCA1 gene may contribute to breast cancer in this group.

Project 3 - “Social Environment, Stress, and Health.” Using feedback obtained from 49 focus groups conducted among breast cancer patients and their families on Chicago’s South Side, Project 3 developed a set of questionnaires which form the basis of ongoing in-home interviews among African American women recently diagnosed with breast cancer. When combined with tumor genetic and histological information from these same women, the in-depth interview data will shed light on the relationship between tumor characteristics and life events, loneliness, stress, and other psychosocial features suspected to influence the onset and course of breast cancer.

Project 4 - “Social Isolation and Response to Mammary Cancer Therapy.” will be led by Suzanne Conzen, M.D. The Sprague Dawley rat model of mammary carcinomas and the SV40 large T transgenic mouse mammary tumor models will be used to investigate the effect of stress on rate of tumor growth, response to chemotherapy, and chemoprevention.

The University of Texas Medical Branch CPHHD consists of three projects which were stimulated by our recent findings that overall mortality and the incidence of most major cancers are significantly decreased among Hispanics living in census tracts with high percentages of Hispanics compared to those living in neighborhoods with low percentages of Hispanics. These findings are operable in the so-called "Hispanic paradox" - the finding that the health of many Hispanic populations in the U.S. is similar to that of non-Hispanic whites even though those Hispanic populations are clearly disadvantaged in terms of income, health insurance, housing, education and other factors that correlate strongly with health. In addition, we will further examine preliminary results which indicate a potentially alarming high prevalence of hepatitis C in our local Hispanic population.

Project 1 - Hispanic Neighborhoods and Cancer Risks/Outcomes. The overall goal of this project is to utilize Census track data to explore the influence of the community context on cancer incidence and mortality and addresses the reasons for the lower cancer incidence of older Mexican-Americans living in neighborhoods with a high percentage of Mexi-cans. This project will also examine how specific health behaviors, such as diet, smoking and exercise among Hispanics vary by neighborhood characteristics.

Project 2 - Environmental Risk, Coping, and Hispanic Health. This project is intended to extend findings by colleagues at UTMB that suggest Hispanics living in areas with greater Hispanic household concentrations have health outcomes better than Hispanics who are geographically integrated with non-Hispanic whites. The research will also add to the explicit understanding of stress (such as living near a major petrochemical refinery) and its moderators in the social epidemiology of Hispanics. Underlying these global goals is an attempt to link social, individual, and physiological level data to better understand their interrelationships in the health of Hispanics.

Project 3 - Stopping the Spread of Hepatitis C in Galveston County. The purpose of this project is to develop an intervention that will encourage Hispanic residents of Galveston County to receive testing for Hepatitis C, and if positive, to receive counseling and education to avoid long term damage from the ill-
The Center for Urban and African American Health (CUAAH) at Wayne State University has many ongoing projects trying to better understand the health and well-being of the African American population in our urban environment. In addition to our funded research projects CUAHA is actively involved in mentoring young researchers. The latest planned project here is being undertaken by Ms. Kyla Williams who will work with CUAHA Principal Investigator, John M. Flack, MD, MPH, FAHA, Professor and Interim Chair of the Department of Medicine and Chief of the Division of Translational Research and Clinical Epidemiology. Kyla is a Detroit native and a senior undergraduate biology major at Spelman College in Atlanta, GA. Last year she was accepted into the NIMH-COR Program (National Institute of Mental Health Career Opportunities in Research), the goal of this program is to give underrepresented minority undergraduates research experience in hopes that they will continue into research related fields. While in the program she has worked on two research projects through the Environmental Protection Agency and Georgia Department of Natural Resources (Spelman Environmental Statistics Summer Institute (SESSI)) under Nagambal Shah, PhD and Monica Stephens, PhD and Morehouse School of Medicine (Schizophrenia Liability Gene among African Americans) under L. DiAnne Bradford, PhD. After graduation she plans to attend graduate school and embark on a career that focuses on health disparities research. Ms. Laurie Bossory, another Detroit Metro native and a pre-med student from Northwestern University, will work with Ms. Williams on this project. Laurie is a summer intern at CUAHA. The internship is designed to give an introduction to the various research options available to her in the medical field.

Their project is looking at how the cumulative burden of community level and individual stressors affects the level of blood pressure in African Americans. The study will include neighborhood composition and also personal stress stemming from the home and family. It is well accepted, though until recently not clearly understood, that stress negatively impacts our general health status; recently, however, specific biological mechanisms have been identified that appear to help explain how stress can activate cellular inflammatory pathways that can lead to an increased risk for a broad range of conditions such as hypertension, diabetes, asthma, heart disease and chronic kidney disease. The NF-κB anti-inflammatory transcription factor is a vital link between stress and activation of cellular pathways causing inflammation. When a person becomes stressed, NF-κB increases its activity which, if left unchecked, can lead to a host of health problems that arise from activation of inflammatory pathways. Multiple studies to date have shown a beneficial impact of stress reduction on clinical outcomes in persons with heart disease. There now appears to be a biological explanation for such improvement, though many of these studies have been relatively short in duration. This project will be presented at NIMH-COR Colloquium Conference in November 2006.

The Study of Clinical Outcomes, Risks & Ethnicity (SCORE)

The goal of this project is to determine the biological and behavioral factors of cancer recurrence by PSA failure (prostate cancer recurrence) after radical prostatectomy treatment (surgical removal of the prostate gland.) It focuses on understanding differences in treatment outcomes in African Americans and European Americans.

This study is designed to:

1) Evaluate ethnic differences in the association of genes with prostate cancer characteristics.

2) Determine ethnic and genetic differences in PSA failure after radical prostatectomy.

3) Determine the effects of genetics and screening behavior on prostate cancer outcomes by ethnicity.

Our volunteers are patients from the University of Pennsylvania’s Urology Department and the Veterans’ Affairs Urology Clinic. Our research team obtains each patient’s baseline PSA from the clinic, and continues to follow-up with each PSA test that is performed after treatment. A PSA of 0.3ng/ml after treatment indicates PSA failure, suggesting that the prostate cancer is still present somewhere in the body.

For the current study we determined ethnic and genetic differences in PSA failure after radical prostatectomy. As we did in the previous report, we included patients from both the University of Pennsylvania Health System and the Veterans Affairs Urology Clinic.

Our current analysis includes the following groups:

- Normal BMI: BMI<30 kg/m2
- Overweight BMI: 30-35 kg/m2
- Obese BMI: ≥35 kg/m2

We used the World Health Organization (WHO) definitions for BMI to divide our patients into these groups. The following are some of the results of our analysis:

- In the normal BMI group, 9.3% of African Americans experienced PSA failure compared to 5.5% of European Americans.
- In the overweight group, 15.4% of African Americans experienced PSA failure compared to 10.6% of European Americans.
- In the obese group, 28.7% of African Americans experienced PSA failure compared to 19.6% of European Americans.

These results suggest that the risk of PSA failure is higher in African Americans compared to European Americans, particularly in the obese group. Further research is needed to understand the underlying mechanisms of these differences and to develop strategies to improve outcomes for African American patients with prostate cancer.