



NIH Centers for Population Health and Health Disparities

Inaugural Edition— Summer 2006

Upcoming Dates & Events

- September 8, 2006
Addressing Racial Health Disparities through Innovative Research
(Hilton North Raleigh, Raleigh, NC)

- October 23-24, 2006
NIH Conference on Understanding and Reducing Disparities in Health: Behavioral and Social Sciences Research Contributions
(Natcher Conference Center, Bethesda, MD)

See page 4 for more events and information.

Welcome Remarks

Welcome to our inaugural edition of the Centers for Population Health and Health Disparities newsletter. The *Publication and Policies Working Group* has worked together to create a forum for exchanging information about our centers. The purpose of the newsletter is to facilitate a cohesive network of information among the NIH centers. The eight centers are conducting a diverse and impressive portfolio of research. The impact of this research is strengthened by the collaborative interactions of the Centers.

This inaugural issue describes each of the Centers, including their primary focus and the individual projects within the Centers. Subsequent issues will drill down to provide more information about specific research or community initiatives and trans-center collaborations, focusing not only on the scientific breakthroughs but the people behind the publications. We will be soliciting content from each of you but please feel free to send us information and updates to be included at any point.

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 an *"Upcoming Dates and Events"* section which highlights national meetings or conferences relating to population health and health disparities research. Finally, the *"Announcements and Awards"* 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.

Katrina Armstrong MD MSCE

Associate Professor, University of Pennsylvania School of Medicine &

Leonard Davis Institute of Health Economics

Chair, Publications and Policies Working Group

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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 Srinivasan (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 associated with other health outcomes? Are people measuring neighborhood stress objectively and subjectively?

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

Contact with comments and suggestions: Melani Sherman melanis@mail.med.upenn.edu (215)573-5057

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Announcements & Awards

Recent publications from Ohio State University:

Katz ML, Wewers ME, Single N, Paskett ED. Key Informants Perspectives Prior To Beginning A Cervical Cancer Study In Ohio Appalachia. Qualitative Health Research (In press).

Wewers ME, Katz M, Fickle D, Paskett ED. Risky behaviors among Ohio Appalachian adults. Preventing Chronic Disease: Public Health Research, Practice and Policy. (In press).

McAlearney AS, Reeves KW, Tatum C, Paskett ED. Perceptions of insurance coverage for screening mammography among women in need of screening. Cancer. 2005.

Recent Publications from RAND:

Cohen DA, McKenzie T, Sehgal A, Williamson S, Golinelli D, Lurie N, How Do Public Parks Contribute to Physical Activity? American Journal of Public Health, 2006. (In press).

Eibner, C. and Sturm, R. "US-based indices of area-level deprivation: results from HealthCare for Communities." Social Science and Medicine. 2006 Jan;62(2):348-59. Epub 2005 Jul 21.

Sturm R, Cohen DA. Suburban sprawl and physical and mental health. Public Health. 2004 Oct;118(7):488-96.

Eibner C, Sturm R, Gresenz CR. Does relative deprivation predict the need for mental health services? J Ment Health Policy Econ. 2004 Dec;7(4):167-75.

Recent publications from Tufts/Northeastern:

Gao X, Martin A, Lin H, Bermudez OI, Tucker KL. Alpha-tocopherol intake and plasma status of Hispanic and non-Hispanic white elders is associated with dietary

intake pattern. J Nutr (In press).

Ho GYF, Qian H, Kim MY, Melnik TA, Tucker KL, Jimenez-Velazquez IZ, Kaplan RC, Lee-Rey ET, Stein DT, Rivera W, Rohan TE: Health disparities between island and mainland Puerto Ricans. Rev Panam Salud Publica 2006;19:331-9.

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

Tucker KL. Stress and nutrition in relation to excess development of chronic disease in Puerto Rican adults living in the Northeastern USA. J Med Invest 2005;52:252-258.

Recent Publications from University of Chicago:

Blackman, D.J., Masi, C.M. Racial and Ethnic disparities in breast cancer mortality: Are we doing enough to address the root causes? Journal of Clinical Oncology 2006; 24: 2170-2178.

Gehlert, S., Chang, C.-H., Bock, R.D., Hartlage, S.A. The WOMQOL instrument measured quality of life in women of reproductive age with no known pathology. Journal of Clinical Epidemiology 2006; 59: 525-533.

McClintock, M.K., Conzen, S.D., Gehlert, S., Masi, C., Olopade, O. Mammary Cancer and Social Interactions: Identifying Multiple Environments That Regulate Gene Expression Throughout the Life Span. Journal of Gerontology 2005; Series B. 60 B (Special Issue 1): 32-41.

Sahoo, S., Brickley, D.R., Kocherginsky, M., Conzen, S.D. Coordinate expression of the PI3-kinase downstream effectors serum and glucocorticoid-induced kinase (SGK-1) and Akt-1 in human breast cancer. Eur J Cancer 2005; 41(17):2754-9.

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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 Appalachia Ohio have high cervical cancer mortality rates. This goal is accomplished through the work of a multi-disciplinary 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-valid 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 nicotine 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.osucc.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/health/centers/pophealth/>



Introduction to the Centers continued...



The National Institutes of Health (NIH) has proposed a mission to reduce and eliminate health disparities among the nation's racial and ethnic minorities. Hispanics, in particular, have been shown to be at risk for several chronic conditions. The **Boston Puerto Rican Center for Population Health and Health Disparities** is investi-

gating relationships between stress and its effect on overall health.

Project 1 - Prospective (2-year) cohort study of Puerto Rican older adults.

We will investigate both baseline and 2 year prospective associations between psychosocial stressors and allostatic load; and in turn, allostatic load and functional decline, specifically depression, cognitive decline and physical disability; along with the role of social support, and vitamin intake and status in modifying these associations.

Project 2 - Sociological investigation of psychosocial stressors and their measurement. Using both qualitative and quantitative methodology, we will gain contextual understanding of the sources of stress in this population that relate to allostatic load, and will adapt instruments for its measurement.

Project 3 - Intervention studies. With a subset of the baseline study participants, we will investigate the effectiveness of multivitamin use over a two year period in reducing the progression of indicators of allostatic load. Project 4 - Investigation of genetic contributions to allostatic load. We will explore the relationship between selected gene variants and allostatic load, at baseline and with change over time; and will investigate the interaction between gene variants and responses to the differing nutrition and social interventions.

<http://cphhd.hnrc.tufts.edu/>



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://cphhd.hrpc.uic.edu/>



The Center for Population Health and Health Disparities (CPHHD) at the **University of Pennsylvania** takes a multidisciplinary approach to studying prostate cancer disparities. There are significant gaps in our knowledge of the factors that predict prostate cancer outcomes, and about the reasons for disparity in prostate cancer-

related health outcomes between African American and Caucasian men. Our research seeks to fill these gaps. Advances in molecular genetics provide an unprecedented opportunity for learning about the biological influences on prostate cancer outcomes in the context of other behavioral, social, and demographic factors.

The CPHHD currently involves 4 studies of prostate cancer management and outcomes. The goals of these projects are to integrate knowledge about biological, behavioral, social environmental and physical environmental factors that contribute to disparities in the health of men diagnosed with prostate cancer. These include studies of prostate cancer:

- screening: physician and patient factors in the use of prostate cancer screening
- genetics: prostate cancer screening and genes involved in hormone metabolism and immune surveillance on prostate cancer outcomes
- patterns of care and treatment decision making: racial residential segregation on patterns of health care and outcomes for prostate cancer
- quality of life: social, cultural, behavioral and environmental factors on quality of life after a prostate cancer diagnosis.

<http://www.cceb.upenn.edu/pages/cphhd/>



The specific aims of the CUAH are to conduct ethical research within the Detroit Metropolitan urban and African American community focusing on understanding mechanisms operating at multiple levels (environment, lifestyle, physiology, genetics), which mediate known disparate chronic conditions and their precursors; and to identify preventive strategies and therapeutic approaches that might alleviate the disproportionate burden of these diseases.

The **Wayne State University** Center for Urban and African American Health [CUAAH] continue to work diligently to meet the aims of the center and the active research projects and cores operating under the center. To date all research projects have received continued IRB approval and continue to actively recruit, screen, and randomize study participants. The three research projects continue to utilize the 5 primary support cores - Admin, Recruitment and Clinical Measures (RCM), Biostatistics Research Databases (BRD), Psychosocial Community Measures (PSM), and Genomics to facilitate participant enrollment, retention, data collection and administrative oversight.

In October 2005 the CUAH hosted Wayne State University's first President's Health Disparities conference. The event was funded by the offices of the Wayne State University President and Provost as well as by educational grant funding from industry. The event spanned 1 1/2 days and was very well-attended both by the WSU and area academic community as well as by the metropolitan Detroit lay community. Over 250 participants registered and participated in the conference. The event presented ongoing disparities research - with a focus on CUAH—conducted at Wayne State University, and highlighted the continued focus and commitment of the university to build a sustainable transdisciplinary research infrastructure

<http://www.med.wayne.edu/intmed/cuaah/cuaah.htm>

Upcoming Dates & Events

Addressing Racial Health Disparities through Innovative Research



September 8, 2006. Hilton North Raleigh, NC.

1st Annual

IHSCR Conference on Minority Health. Investigators from the Institute for Health, Social, and Community Research (IHSCR) at Shaw University will share findings from research on access to care for the elderly, faith-based collaborations for research, prostate cancer, and building a research infrastructure.

www.ihscr.org/conference/confminhealthhome.htm

The Whether, How, and When of Race in Biomedical Research: Four Perspectives.



September 15, 2006. Irvine Auditorium, University of Pennsylvania, Philadelphia PA

Race, ethnicity, and ancestry are commonly used in biomedical research. It is not always clear if or when the use of these concepts is appropriate, or how to interpret research results that involve these concepts. There are widely divergent perceptions of the value and use of race, ethnicity, or ancestry in biomedical research. Furthermore, race is increasingly being used in clinical practice, including race-specific treatments. This symposium will present a conversation involving four different perspectives on the use and meaning of race in biomedical research.

www.bioethics.upenn.edu

Second Annual African American Prostate Cancer Disparity Summit



September 21-22, 2006. Rayburn House Office Building, Washington, DC

<http://prostatehealthed.org/>

Presented by the Prostate Health Education Network (PHEN). Primary summit goals are to raise awareness and to foster a common understanding and strategic framework towards eliminating the prostate cancer racial disparity. Black men in the United States suffer the world's highest prostate cancer incidence and mortality rates - epidemic levels by most measures.

NIH Conference on Understanding and Reducing Disparities in Health: Behavioral and Social Sciences Research Contributions



October 23-24, 2006.

NIH Campus. Natcher Conference Center. Bethesda, MD.

The conference focuses on three broad areas of action influencing health disparities: policy, prevention, and healthcare. It emphasizes both basic research on the behavioral, social, and biomedical pathways giving rise to disparities in health and applied research on the development, testing, and delivery of interventions to reduce disparities in these three action areas.

<http://obsr.od.nih.gov/HealthDisparities/index.html>

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 or related pathways might 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.

<http://cihdr.uchicago.edu/>



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 tract 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 Mexican-Americans. 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-

<http://www.catchum.utmb.edu/>

In the Spotlight...



Center for Urban and African American Health at Wayne State University



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 CUAAH is actively involved in mentoring young researchers. The latest planned project here is being undertaken by Ms. Kyla Williams who will work with CUAAH 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



Laurie Bossory (left) and Kyla Williams (right)

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 CUAAH. 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- κ B anti-inflammatory transcription factor is a vital link between stress and activation of cellular pathways causing inflammation. When a person becomes stressed, NF- κ B 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 at 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.

Our most recent study findings suggest that obesity may be a risk factor for poor prognosis in prostate cancer patients. The goal of this project was to compare PSA failure in both obese and non-obese men by race. 824 prostate cancer cases were identified at the University of Pennsylvania Health System between 1995 and 2002. Obesity was measured using Body Mass Index (BMI) from self-reported height and weight. Each participant's BMI was categorized according to the WHO definitions of obese (BMI \geq 30kg/m²), overweight (BMI 25-30kg/m²) and normal (BMI \leq 25 kg/m²). For analysis, normal and overweight groups were combined (BMI $<$ 30 kg/m²) and compared to the obese group (BMI \geq 30 kg/m²). Of the 824 patients, 233 (28.3%) were obese and 591 (71.7%) were not obese. African Americans had higher BMI than European Americans. Race by itself was not a predictor of PSA failure. Adjusting for tumor stage and age, we found that obese African-Americans were 3 times more likely to experience PSA failure than non-obese African-Americans. A similar effect of obesity was not observed in European Americans. Obesity is associated with higher stage disease and poor prognosis for African-Americans, suggesting that for African-American men, obesity may play a factor in poorer clinical outcomes.



Announcements & Awards

Continued...

Recent Publications from UTMB:

Reyes-Ortiz, C.A., Goodwin, J.S., Freeman, J.L. 2005. The effect of socioeconomic factors on incidence, stage at diagnosis and survival of cutaneous melanoma. *Med. Sci. Monit*, 11:RA163-172.

Eschbach K, Kuo YF, Goodwin JS. 2006. Errors in ascertainment of Hispanic ethnicity on the California death certificate: Implications for the explanation of the Hispanic mortality advantage. *American Journal of Public Health*. (In press).

Peek, M.K., Cutchin, M.P., Freeman, D.H., Perez, N.A., and Goodwin, J.S. Perceived health change in the aftermath of a petrochemical accident: An examination of predisposing, precipitating, and perpetuating factors. Under review (revise and resubmit) at *Journal of Epidemiology and Community Health*.

Eschbach K, Stimpson JP, Kuo YF, Goodwin JS. Mortality of Hispanic immigrants and U.S.-born Hispanics at younger ages: a re-examination of recent patterns.

American Journal of Public Health. Accepted pending minor revisions.

Recent publications from Wayne State University:

Artinian NT, Washington OG, Flack JM, Hockman EM, Jen KL. Depression, stress, and blood pressure in urban African-American women. *Prog Cardiovasc Nurs*. 2006 Spring;21(2):68-75.

Djuric Z, Bird C, Furumoto-Dawson A, Rauscher G, Ruffin M IV, Stowe RP, Tucker K, Masi C. "Biological Markers of Psychological Stress in Health Disparities Research" Submitted to *Biological Reviews*.

Artinian NT, Warnecke RB, Kelly KM, Weiner J, Lurie N, Flack JM, Mattei J, Eschbach K, Long JA, Furumoto-Dawson A, Hankin JR, DeGraffinreid C. "Advancing the Science of Health Disparities Research". Submitted to *Ethnicity and Disease*.

