

HEALTH DISPARITIES RESEARCH SYMPOSIUM

March 17-18, 2015 . DoubleTree Hotel . 808 20th Street South . Birmingham, AL 35205

The Science of Health Disparities: From Social Causes to Personalized Medicine



UAB MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH CENTER

Knowledge that will change your world



Dear Symposium Guests,

With great pleasure I welcome you to the 10th Annual UAB Health Disparities Research Symposium.

The symposium highlights research related to health disparities by academic investigators, students, and community partners in basic science, clinical research, social and behavioral science, community-based, and health outcomes research.

Organized by the UAB Minority Health and Health Disparities Research Center (MHRC), a University-Wide Interdisciplinary Research Center and a designated Center of Excellence by the National Institutes of Health, in the past decade this scientific meeting has expanded in ways that reflect the growth and proliferation of the Center. The symposium began in 2005 as a Minority Health Research Day with presentations by UAB faculty. Over the years, its themes covered a range of health disparities topics, such as obesity, diabetes, cancer, genomics, and health policy. The forum eventually expanded to reflect the entire science of health disparities "from discovery to delivery," and became distinctly integrative in its approach, highlighting the convergence of biological, clinical, social, and behavioral disciplines in health disparities research.

As the symposium's scientific concept matured, the event began to attract nationally and internationally prominent experts and scientists, as well as informed and engaged participants from across the country. In its 10th anniversary edition, the symposium is co-sponsored by three national transdisciplinary collaborative centers (TCCs) for health disparities research: the Mid-South TCC focused on the social determinants of health disparities, the Center for Healthy African American Men through Partnerships (CHAAMPS), and the Gulf States Health Policy Center. Befitting this diversity of scientific approaches and nationwide reach, an impressive line of speakers will share their insights about challenges and opportunities in the multidisciplinary science of health disparities, from the fundamentals of social conditions to the ramifications of personalized medicine. The topics of academic-community collaborations and policy solutions for health equity will round up the discourse, addressing the applied aspects of the science of health disparities.

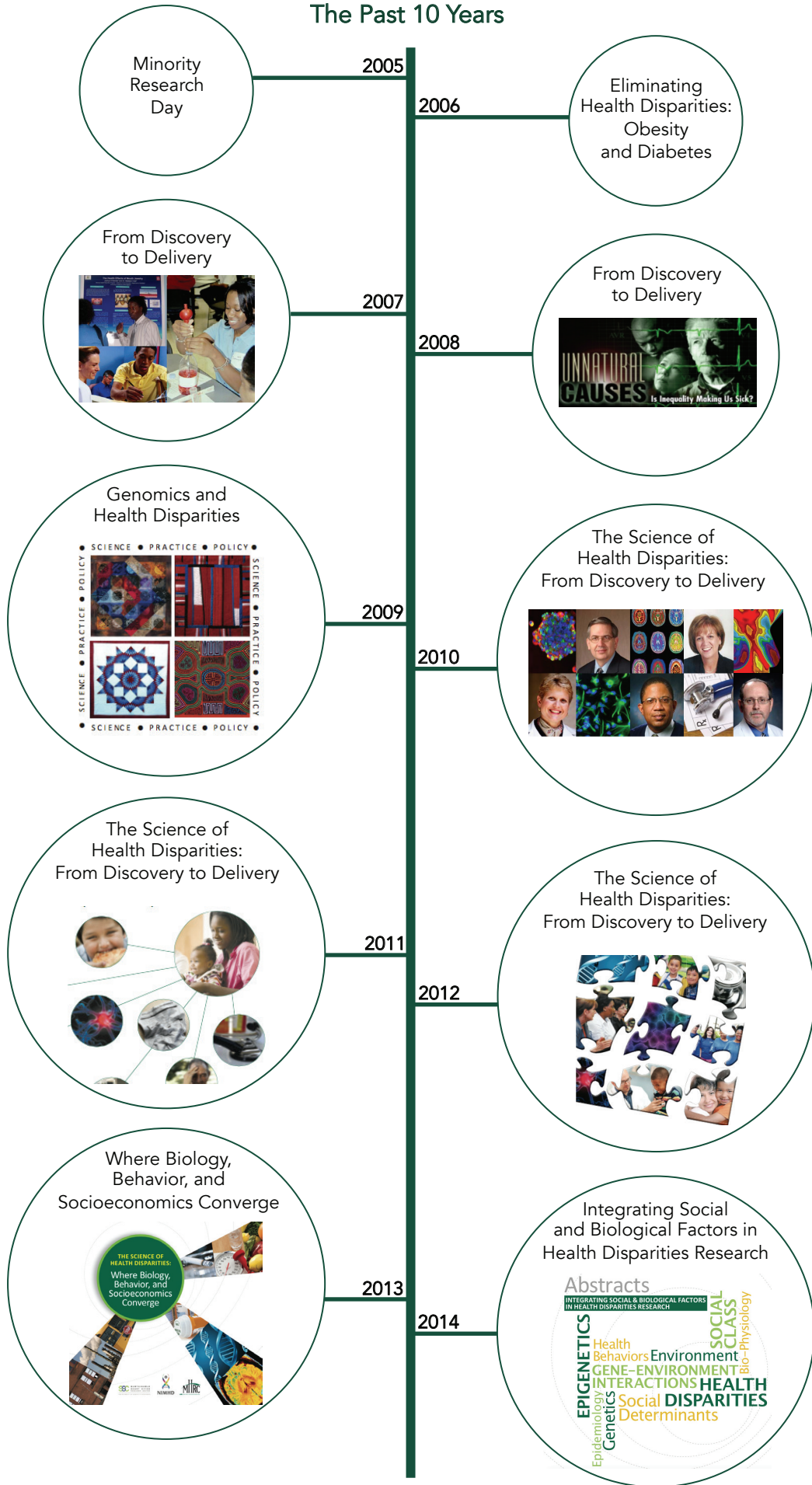
The symposium's success over the years would not have been possible without you, your interest in the causes and mechanisms of health disparities, your passion for excellence and innovation, and your enthusiasm for equity in health and health care. Thank you for your time, commitment, and continued support!

I hope that you will use this scientific forum to enrich your views, share ideas and perspectives with colleagues, create networks, and generate collaborations that will bear future projects.

With best wishes for a productive and enjoyable meeting,

Mona N. Fouad, MD, MPH
Senior Associate Dean for Diversity and Inclusion, School of Medicine
Director and Professor, Division of Preventive Medicine
Director, Minority Health and Health Disparities Research Center
The University of Alabama at Birmingham

The Past 10 Years



TUESDAY, MARCH 17, 2015

Event Time	Topic	Room Location
7:30 AM	Registration and Breakfast	
POSTER SESSION		
8:00 – 9:30 AM	Open Forum: Review Research Posters and Discuss with Presenters	<i>Heritage II</i>
9:30 AM	OPENING REMARKS Mona Fouad, MD, MPH , Senior Associate Dean for Diversity and Inclusion, UAB School of Medicine; Director and Professor, UAB Division of Preventive Medicine; Director, UAB Minority Health and Health Disparities Research Center	<i>Heritage I</i>
BREAKOUT SESSION		
9:45 – 11:15 AM	African American Men's Health Moderator: James M. Shikany, DrPH , Professor, UAB School of Medicine, Preventive Medicine	<i>Arlington</i>
	SPEAKER	TOPIC
1	Ewan Cobran, PhD Assistant Professor, University of Georgia, College of Pharmacy	Racial Differences in Diffusion of Intensity-modulated Radiation Therapy for Localized Prostate Cancer
2	Kristine Hearld, PhD Assistant Professor, UAB School of Health Professions, Health Services Administration	Panic Attacks in Minority Americans: The Effects of Alcohol Abuse, Tobacco Smoking, and Discrimination
3	Bradford Jackson, PhD Postdoctoral Fellow, UAB School of Medicine, Preventive Medicine	Unintentional Injuries and Violence-related Behavior among Adolescent Males: Racial and Geographic Region Differences
4	Monika Safford, MD Professor, UAB School of Medicine, Preventive Medicine	Race–Sex Differences in the Management of Hyperlipidemia: The REasons for Geographic And Racial Differences in Stroke (REGARDS) Study
9:45 – 11:15 AM	Health Policy Moderator: Michelle Martin, PhD , Associate Professor, UAB School of Medicine, Preventive Medicine	<i>University</i>
	SPEAKER	TOPIC
1	Tanya Funchess, DHA, MPH, MSM Director, Health Disparity Elimination, Mississippi State Department of Health	Training Community Members to Be Better Consumers of Research
2	Chelsea Singleton, MPH UAB School of Public Health, Epidemiology	Association between Farm-to-Consumer Outlet Use and Daily Fruit and Vegetable Intake among WIC Program Participants in Jefferson County, Alabama
3	Jammie M. Hopkins, DrPH, MS Project Director, Transdisciplinary Collaborative Center (TCC) for Health Disparities Research, Morehouse School of Medicine	Harnessing the Power of Transdisciplinary Collaboration to Inform Health Policy and Advance Health Equity in the South
4	John Estrada, MD Director of Education and Community Services, Stanley S. Scott Cancer Center; Associate Director, Clinical and Translational Research Center, Louisiana State University Health Sciences Center	HPV Vaccine Uptake in the Recommended Population: Policy Implications
9:45 – 11:15 AM	Community-based and Outcomes Research – I Moderator: Kenneth Saag, MD, MSc , Professor, UAB School of Medicine, Clinical Immunology and Rheumatology	<i>Centennial I</i>
	SPEAKER	TOPIC
1	Dori Pekmezi, PhD Assistant Professor, UAB School of Public Health, Health Behavior	Testing the Feasibility and Acceptability of an Interactive, Internet-based Physical Activity Intervention for Latinas in Alabama
2	Yu-Mei Schoenberger, PhD, MPH Assistant Professor, UAB School of Medicine, Preventive Medicine	Usage of Social Networking Sites in Research and Collaboration
3	Andrea Silber, MD Associate Professor, Yale Medical School	Changing the Ratio: Racial and Ethnic Diversity in Cancer Clinical Trials in New Haven, Connecticut
4	Donna Antoine-LaVigne, PhD, MPH, MSED Associate Director, Community Partnerships; Vice President for Research and Federal Relations, Jackson State University	Engaging Minority Participants in Research Using Community Engagement Studios

TUESDAY, MARCH 17, 2015

Event Time	Topic	Room Location
BREAKOUT SESSION		
9:45 – 11:15 AM	Community-based and Outcomes Research – II Moderator: Karen Meneses, PhD, RN, FAAN , Professor and Associate Dean for Research, UAB School of Nursing; Co-Leader, Cancer Control and Population Sciences Program, UAB Comprehensive Cancer Center	<i>Centennial II</i>
	SPEAKER	TOPIC
1	Haichang Xin, PhD Research Associate, UAB School of Public Health, Health Care Organization and Policy	Is There a Racial Disparity in Access to and Use of the Patient-centered Medical Homes? Empirical Evidence from a U.S. Nationally Representative Sample
2	Jennifer Cunningham-Erves, PhD, MAEd Postdoctoral Fellow, Meharry Vanderbilt Community Engaged Research Core, Meharry Medical College, Surgery	Factors Associated with African American Maternal Intentions to HPV Vaccinate Their Daughters in Alabama: A Sequential Mixed Methods Study
3	Suguna Badiga, PhD Research Associate, UAB School of Health Professions, Nutrition Sciences	The Radical Differences in Survival Outcomes by Histological Subtype of Cervical Cancer
4	John R. Stone, MD, PhD Professor, Center for Health Policy and Ethics, Creighton University	Trust and Humility in Community-based Participatory Research
RESEARCH WORKSHOP		
11:30 AM – 12:30 PM	Academic–Community Partnerships Barbara A. Israel, DrPH Professor of Health Behavior and Health Education, University of Michigan Zachary Rowe Executive Director, Friends of Parkside	<i>Heritage I</i>
12:30 PM	LUNCH BUFFET OPEN	
PLENARY SESSIONS		
1:00 – 2:00 PM	African American Men’s Health: Breaking the Silence Mark Alexander, PhD 100 Black Men of America, Inc	<i>Heritage I</i>
2:00 – 3:00 PM	Policy Solutions for Health Disparities Brian Smedley, PhD Executive Director, National Collaborative for Health Equity	<i>Heritage I</i>
TALK TO THE EXPERTS		
3:00 – 4:00 PM	Mark Alexander, PhD 100 Black Men of America, Inc.	<i>Centennial I</i>
3:00 – 4:00 PM	Brian Smedley, PhD Executive Director, National Collaborative for Health Equity	<i>Centennial II</i>
4:30 – 5:30 PM	Gulf States Health Policy Center Coalition Meeting (closed)	<i>Arlington</i>
DINNER RECEPTION		
5:30 PM	Dinner Buffet	<i>Heritage I</i>
6:00 PM	Ten Years of Leadership in the Multidisciplinary Science of Health Disparities Richard Marchase, PhD , Vice President, Research and Economic Development, UAB	<i>Heritage I</i>
6:15 PM	Selwyn Vickers, MD , Senior Vice President, UAB Medicine; Dean, UAB School of Medicine Policy Solutions for Health Disparities Regina Benjamin, MD, MBA , Professor and Endowed Chair, Department of Public Health Science Xavier University of Louisiana	<i>Heritage I</i>
7:00 PM	2015 Mentor Award	<i>Heritage I</i>
7:15 PM	Recognition of Community Partners	<i>Heritage I</i>
7:30 PM	Concluding Remarks Mona Fouad, MD, MPH , Senior Associate Dean for Diversity and Inclusion, UAB School of Medicine; Director and Professor, UAB Division of Preventive Medicine; Director, UAB Minority Health and Health Disparities Research Center	<i>Heritage I</i>

WEDNESDAY, MARCH 18, 2015

Event Time	Topic	Room Location
7:30 AM	Registration and Breakfast	
BREAKOUT SESSION		
8:15 – 9:15 AM	Basic Science Moderator: David Chaplin, MD, PhD , Professor, UAB School of Medicine, Microbiology and Medicine/ Pulmonary, Allergy and Critical Care	Arlington
	SPEAKER	TOPIC
1	Esther Suswam, DVM, PhD Assistant Professor, UAB School of Medicine, Neurology	Molecular and Cellular Localization Profiles of Tristetraprolin in Colorectal Cancer: Implications for Tumor Progression in Diverse Patient Populations
2	Jesus Salazar-Gonzalez, PhD Research Associate, UAB School of Medicine, UAB Comprehensive Cancer Center	Frequency Distribution and Prognostic Significance of Codon 72 and Intron-3 Polymorphisms Differs with Race in Colorectal Cancer
3	Prachi Bajpai, PhD Research Associate, UAB School of Medicine, Genetics	Genetic Differences in African and Caucasian Populations in Nuclear Gene Encoding Mitochondria Localized POLG1 Polymerase
8:15 – 9:15 AM	Epidemiology Moderator: Linda Moneyham, PhD, RN, FAAN , Professor and Senior Associate Dean for Academic Affairs, UAB School of Nursing	University
	SPEAKER	TOPIC
1	George Howard, DrPH Professor, UAB School of Public Health, Biostatistics	Where Should Interventions Be Focused to Reduce the Black–White Disparity in Stroke Mortality? Insights from the Reasons for Geographic and Racial Differences in Stroke (REGARDS) Study
2	Virginia Howard, PhD Professor, UAB School of Public Health, Epidemiology	Apparent Treatment-resistant Hypertension among Individuals with History of Stroke or Transient Ischemic Attack
3	Karen Albright, DO, MPH Vascular Neurology / Stroke Fellow, UAB School of Medicine, Neurology	Secondary Stroke Prevention Prescribing: Findings from the REasons for Geographic And Racial Differences in Stroke (REGARDS) Study
8:15 – 9:15 AM	Social Determinants of Health – I Moderator: Wendy Denmark-Wahnefried, PhD, RD , Professor and Webb Endowed Chair of Nutrition Sciences; Associate Director, UAB Comprehensive Cancer Center	Centennial I
	SPEAKER	TOPIC
1	Richard Scribner, MD, MPH D'Angelo Professor, Louisiana State University School of Public Health	Effect of Neighborhood Disadvantage on Metabolic Control among Pediatric Diabetes Patients
2	Douglas Moellering, PhD Assistant Professor, UAB School of Health Professions, Nutrition Sciences	Preliminary Findings: Adverse Effects of Life Stress on Obesity
3	Maura Mohler, MPH Louisiana State University School of Public Health	Relationships between Obesity, Metabolic Health, and Neighborhood Concentrated Disadvantage in Pre-pubertal Children
8:15 – 9:15 AM	Social Determinants of Health – II Moderator: Robert Weech-Maldonado, PhD, MBA , Professor and L.R. Jordan Endowed Chair, UAB School of Health Professions, Health Services Administration	Centennial II
	SPEAKER	TOPIC
1	Henna Budhwani, PhD, MPH Assistant Professor, UAB School of Public Health, Health Care Organization and Policy; Deputy Director, UAB Sparkman Center for Global Health	Generalized Anxiety Disorder in Racial and Ethnic Minorities: A Case of Nativity and Contextual Factors
2	Daniel Velez-Ortiz, PhD School of Social Work and Julian Samora Research Institute, Michigan State University	Culture, Gender, and Depression: Puerto Rican Older Adult's Experiences with Depression
3	Magdalena Szaflarski, PhD Assistant Professor, UAB College of Arts and Sciences, Sociology	Social Determinants of Health Lifestyles in Poland: Effect Changes Over Time

WEDNESDAY, MARCH 18, 2015

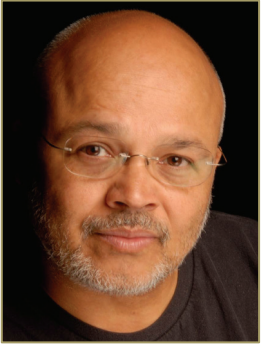
Event Time	Topic	Room Location
PLENARY SESSIONS		
9:30 – 10:30 AM	Social Conditions as a Fundamental Cause of Health Disparities Bruce Link, PhD Professor of Epidemiology and Sociomedical Sciences, Columbia University Mailman School of Public Health	<i>Heritage I</i>
10:30 – 11:30 AM	Challenges and Opportunities in Studying the Multilevel Determinants of Health Ana Diez Roux, MD, PhD, MPH Dean and Distinguished Professor of Epidemiology, Drexel University School of Public Health	<i>Heritage I</i>
11:30 AM – 12:30 PM	Social Consequences of Genetic Explanations for Racial Differences in Health Jo Phelan, PhD Professor of Sociomedical Sciences, Columbia University Mailman School of Public Health	<i>Heritage I</i>
12:30 PM	LUNCH BUFFET OPEN	
1:00 PM	Oral and Poster Presentation Awards	<i>Heritage I</i>
1:30 – 2:15 PM	Personalized Medicine: Implications for Disparities in Drug Response Nita Limdi, PharmD, PhD, MSPH Professor, UAB School of Medicine; Director, UAB Personalized Medicine Institute	<i>Heritage I</i>
TALK TO THE EXPERTS		
2:30 – 3:30 PM	Bruce Link, PhD Professor of Epidemiology and Sociomedical Sciences, Columbia University Mailman School of Public Health	<i>Centennial I</i>
2:30 – 3:30 PM	Ana Diez Roux, MD, PhD, MPH Dean and Distinguished Professor of Epidemiology, Drexel University School of Public Health	<i>Centennial II</i>
2:30 – 3:30 PM	Jo Phelan, PhD Professor of Sociomedical Sciences, Columbia University Mailman School of Public Health	<i>University</i>
2:30 – 3:30 PM	Nita Limdi, PharmD, PhD, MSPH Professor, UAB School of Medicine; Director, UAB Personalized Medicine Institute	<i>Arlington</i>
SYMPOSIUM CONCLUSION		

The UAB Health Disparities Research Symposium is UAB's annual forum designed to keep scientists at UAB and other academic institutions across the Southeast, including key minority institutions, at the forefront of health disparities research. The event highlights the work of investigators in basic science and clinical, behavioral, social, and community-based research as it relates to health disparities, enabling scholars to share ideas and build important network in the scientific community. The symposium, now in its tenth year, works hand in hand with other programs of the UAB Minority Health and Health Disparities Research Center to encourage investigators to enter the field of health disparities research. Thank you for your participation and support.

Symposium Scientific Planning Committee

Mona Fouad, MD, MPH; Linda Moneyham, DNS, RN, FAAN; Edward Partridge, MD; Robert Weech-Maldonado, PhD, MBA

INVITED SPEAKERS



Mark Alexander, PhD
100 Black Men of America, Inc.

Dr. Alexander is an epidemiologist committed to improving the health outcomes of marginalized communities. He is particularly interested in the effects of racism and social class on health. Dr. Alexander has been a member of the San Francisco Bay Area Chapter of 100 Black Men since 1994, and was Chairman of the Bay Area Chapter's Board of Directors for three terms. He served as Chairman of the National Health and Wellness Committee for 100 Black Men of America, and currently serves as Secretary of the organization's National Executive Committee. Dr. Alexander is a retired research scientist at the Division of Research, Kaiser Permanente Northern California. He is the former Assistant Director of the Medical Effectiveness Research Center for Diverse Populations, University of California at San Francisco.



Regina Benjamin, MD, MBA
Professor and Endowed Chair, Department of Public Health Science
Xavier University of Louisiana

Dr. Benjamin served as the United States 18th Surgeon General. She specializes in prevention policies and health promotion, especially concerning obesity and children's health. She has interest in rural health care, health disparities, suicide, violence, and mental health. From her early days as the founder of a rural health clinic in Alabama, to her leadership role in the worldwide advancement of health, Dr. Benjamin has forged a career that has been recognized by a broad spectrum of organizations. In 1998, she was the U.S. recipient of the Nelson Mandela Award for Health and Human Rights; in 2000, she received the National Caring Award; in 2008, she was honored with a MacArthur Genius Award Fellowship; and in 2011, she became the recipient of the Chairman's Award at the 42nd NAACP Image Awards. In 2013, *Reader's Digest* ranked her #22 of the 100 Most Trusted People in America.



Ana Diez Roux, MD, PhD, MPH
Dean and Distinguished Professor of Epidemiology, School of Public Health
Drexel University

Dr. Diez Roux is an international leader in the investigation of the social determinants of health, the application of multilevel analysis in health research, and the study of neighborhood health effects. Her research areas include social epidemiology and health disparities, environmental health effects, urban health, psycho-social factors in health, and cardiovascular disease epidemiology. She has served on advisory committees for the Environmental Protection Agency, the National Center for Health Statistics, and the International Council for Science. She was a member of the MacArthur Network on Socioeconomic Factors and Health and is Co-Director of the Network on Inequality, Complexity and Health. Dr. Diez Roux was awarded the Wade Hampton Frost Award by the American Public Health Association, and is an elected member of the American Epidemiological Society, the Academy of Behavioral Medicine Research, and the Institute of Medicine of the National Academy of Sciences.



Barbara A. Israel, DrPH
Professor of Health Behavior and Health Education, School of Public Health
University of Michigan

Dr. Israel has published widely in the areas of the social and environmental determinants of health and health inequities; the relationship between stress, social support, and physical and mental health; and community-based participatory research (CBPR). Since 1995, she has worked with academic and community partners to establish and maintain the Detroit Community-Academic Urban Research Center, which involves multiple NIH and foundation-funded research projects aimed at increasing knowledge and addressing factors associated with health inequities. Dr. Israel is actively involved in CBPR projects addressing the environmental triggers of childhood asthma, the social and physical environmental determinants of cardiovascular disease, access to food and physical activity spaces, and translating research findings into policy change.



Nita A. Limdi, PharmD, PhD, MSPH, FAHA
Professor of Neurology and Epidemiology; Director, Personalized Medicine Institute
University of Alabama at Birmingham

The research interests of Dr. Limdi center on pharmacogenetics/ genomics and pharmacoepidemiology of cardiovascular phenotypes. Her primary focus is to elucidate genetic and environmental determinants of oral anticoagulants drugs response, specifically those that are associated with toxicity and lack of efficacy. Currently her research includes both prospective cohort and randomized clinical trials designed to understand the genetic and environmental contributors to warfarin response. Complementing the pharmacogenetic research is her interest in cardiovascular epidemiology and pharmacoepidemiology. Dr. Limdi aims to fill critical knowledge gaps in atrial-fibrillation and stroke and to identify genetic susceptibility to adverse reactions thereby selecting other medications for patients who are genetically likely to benefit.



Bruce Link, PhD

Professor of Epidemiology and Sociomedical Sciences, Mailman School of Public Health
Columbia University

Dr. Link is the Director of the Center for Social Inequalities and Health, the Director of the Psychiatric Epidemiology Training Program, and Director of the Robert Wood Johnson Health and Society Scholars Program at Columbia University. He also is Research Scientist at New York State Psychiatric Institute. A social epidemiologist, Dr. Link conducts research aimed at understanding health inequalities by race/ethnicity and socioeconomic status, the life-course origins of health inequalities, and the health consequences of social stigma. He is a recipient of the Leonard Pearlman Award for career achievement from the American Sociological Association (2002), the Leo G. Reeder Award from the American Sociological Association (2007), and the Rema Lapouse Award from the American Public Health Association. He was elected to the Institute of Medicine in 2002.



Jo Phelan, PhD

Professor of Sociomedical Sciences, Mailman School of Public Health
Columbia University

Dr. Phelan is Professor of Sociomedical Sciences in the Columbia University Mailman School of Public Health. Her research focuses on stigma, prejudice, and discrimination, especially with respect to mental illness, and the impact of the genomic revolution on stigma and racial attitudes. She has published extensively on the topic of social conditions as fundamental causes of inequalities in health and mortality, and the legitimization of social inequality. She is particularly interested in the interplay between structural conditions and social psychological processes in the creation and reproduction of inequalities.



Zachary Rowe

Executive Director, Friends of Parkside

Mr. Rowe is Executive Director of Friends of Parkside, a community-based organization located in a public housing complex in Detroit. He is also a founding and current member of the Detroit Community-Academic Research Center (URC) Board and serves on several URC affiliated partnerships. Mr. Rowe has co-authored manuscripts, helped develop CBPR curriculum, and co-presented with Detroit URC faculty and community partners at national conferences. He is a vocal advocate for making research responsive and relevant to community needs and for designing interventions that can make a difference in the lives of community members. He serves as the Co-PI on National Institute of Health (NIH) and Agency for Healthcare Research and Quality (AHRQ) grants.



Brian Smedley, PhD

Executive Director, National Collaborative for Health Equity

Dr. Smedley is co-founder and Executive Director of the National Collaborative for Health Equity, a project that connects research, policy analysis, and communications with on-the-ground activism to advance health equity. From 2008 to 2014, Dr. Smedley was Vice President and Director of the Health Policy Institute of the Joint Center for Political and Economic Studies in Washington, DC, a research and policy organization focused on the needs of communities of color. Formerly, he was Senior Program Officer in the Division of Health Sciences Policy of the Institute of Medicine (IOM), where he served as Study Director for the IOM reports *In the Nation's Compelling Interest: Ensuring Diversity in the Health Care Workforce* and *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. In 2013, he received the American Public Health Association's Cornely Award for social activism.

The Science of Health Disparities: From Social Causes to Personalized Medicine



ABSTRACTS

10th Annual UAB Health Disparities Research Symposium
March 17–18, 2015

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10th Annual UAB Health Disparities Research Symposium
March 17–18, 2015

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Albright, Karen, DO, MPH

Wednesday – University

UAB School of Medicine, Neurology

Secondary Stroke Prevention Prescribing: Findings from the REasons for Geographic And Racial Differences in Stroke (REGARDS) Study

Karen Albright, DO, MPH; Amelia Boehme, PhD; George Howard, DrPH; Virginia Howard, PhD; Suzanne Judd, PhD; Nita Limdi, PharmD, PhD, MSPH; Leslie McClure, PhD; David Rhodes, MPH; Monika Safford, MD; Justin Blackburn, PhD

Purpose: Stroke is a costly and debilitating disease disproportionately affecting blacks. Despite the demonstrated efficacy of secondary stroke prevention (SSP) medications, evidence suggests racial disparities in SSP prescribing.

Methods: We used the Reasons for Geographic and Racial Differences in Stroke (REGARDS), a national cohort study of 30,239 participants aged = 45 years with oversampling of blacks in the southeastern US. A cross-sectional study of ischemic stroke hospitalizations within REGARDS was conducted. Exposures of interest (black race, female sex, age >=65, rural residence) were obtained at REGARDS baseline interviews. Current medications at the time of admission and prescriptions written at discharge were obtained from medical records. Associations between the exposures of interest and discharge SSP prescription were examined using logistic regression.

Results: From 2003-2011, 707 eligible strokes occurred among patients with a mean age of 74, (57% black, 51% female, 22% rural). Antithrombotic therapy (antiplatelet/anticoagulant) was prescribed for 91% of 290 antithrombotic-naïve patients. Statins were prescribed for 62% of 439 statin-naïve patients and ACE-I/ARB for 49% of 403 ACE-I/ARB-naïve patients. Participants living in a rural area had 4.7 times greater odds of being prescribed an antithrombotic (95% CI 1.1-20.5). We observed no significant differences in prescribing patterns for antithrombotics by race, sex, or age. Women had 2.1 times greater odds (95% CI 1.2-3.6) and older adults had 0.5 times lower odds of receiving ACE-I/ARB prescriptions (95% CI 0.2-0.9); race, age, and rurality were not statistically significant. There were no significant differences in statin prescribing.

Discussion/Conclusions: The majority of incident stroke cases were newly prescribed antithrombotics at discharge. Just over half were prescribed statins and less than half were prescribed ACE-I/ARBs. Our findings contradict previous reports from hospitals self-selected for a national quality improvement program. With the exception of antithrombotics for rural residents, no SSP prescribing differences were found by race, sex, or age. Our findings suggest that opportunities for reducing recurrent stroke remain in statin and ACE-I/ARB SSP prescribing. Although we found differences in antithrombotic prescribing for rural participants, this is not enough to conclude that recurrent stroke disparities are related to prescribing patterns.

Andreae, Lynn, MPH

Poster 1

UAB School of Medicine

Medication-related Beliefs in Rural African Americans with Diabetes

Lynn Andreae, MPH; Susan Andreae, MPH; Monika Safford, MD

Purpose: Understanding patient perceptions about medications may be critical for improving adherence, especially among minorities living with diabetes in underserved regions, as their experiences may produce unique perspectives. The goal of this study was to understand the lived experience of diabetes in people residing in rural, underserved communities in Alabama to inform the development of an intervention to improve medication adherence.

Methods: Three focus groups (n=16) were held in 2014 in two Alabama Black Belt counties with volunteers who were taking diabetes medications. Of the 16 participants, 15 were women, 15 were African American, 12 were over the age of 50, 15 had graduated from high school or college, and 10 worked full or part-time. All participants had seen their primary care provider in the past 6 months. Participants responded to three main questions that queried: 1) their knowledge of diabetes and its complications; 2) the impact of diabetes on their lives; and 3) ways in which they could live as well as they can and as long as they can with diabetes. Focus group data were analyzed using grounded theory.

Results: Along with themes previously described in other populations (e.g., cost as a barrier to diabetes self-care; emotional responses to learning how serious diabetes can be; importance of seeing others' experience with diabetes complication as a motivator for adherence), three unique themes emerged: 1) The perception of personal failure if diabetes medications continue to be needed (i.e., medications are regarded as secondary to diet and exercise and if they are needed it is only because one's efforts to modify diet and exercise are not "good enough"); 2) Lack of understanding of how medications work (e.g., many did not understand that medications lower risks of diabetes complications); 3) The belief that the need for medication was temporary (e.g., they would at some point in the future no longer need them) and episodic (e.g., many believed that diabetes medications are not needed on days when the morning glucose reading is in the target range).

Conclusions: In order to be effective, interventions to improve medication adherence in culturally distinct settings need to be informed by the target population's beliefs and perceptions.

Quality of Life Improved in Individuals with Diabetes in a CBT-based Program Delivered by CHWs

Susan Andreae, MPH; Christopher Gamboa, MPH; Joshua Richman, MD, PhD; Monika Safford, MD

Purpose: As many as 75% of people with diabetes report chronic pain. While cognitive behavioral therapy (CBT) improves pain and functioning in individuals with chronic pain, many rural and underserved communities lack resources for such programs. We tested the hypothesis that a CBT-based program delivered by community health workers (CHW) can improve quality of life in individuals with diabetes and chronic pain.

Methods: Living Healthy was a community-based, clustered randomized controlled trial engaging adults with diabetes, chronic pain, and a primary care doctor. The intervention (INT) group received an 8-session telephonic diabetes self-management program administered by CHW over 12 weeks and incorporating adaptive coping skills, setting diabetes self-management behavioral goals, practicing stress reduction techniques, and cognitive restructuring. Controls (C) received general health advice with equal number of CHW contacts. Coping behaviors were assessed using the Coping Strategies Questionnaire-24 (range 0-46). Pain was assessed using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC, range 0-1), A Measure of Intermittent and Constant Osteoarthritis Pain (ICOAP, range 0-100), and the McGill Pain Questionnaire (MPQ, range 0-45). Physical activity (PA) was measured by assessing the number of days in the past week with intense PA enough to work up a sweat, number of days walked, and participating in PA despite pain.

Results: Of the 153 individuals with complete data, mean age was 59.4 ±10.6 years, 95% (n=146) were African Americans, and 80% (n=122) were women. Coping scores improved in INT by 5.1 points more than in C, $p<0.001$. Compared to C, ICOAP, WOMAC, and MPQ scores improved more in INT from baseline to follow-up by 8.2 ($p=0.01$), 0.05 ($p=0.05$), and 2.1 points ($p=0.09$), respectively. Intense PA levels did not significantly differ at follow-up (0.24 days, $p=0.47$), but INT participants walked 1.2 more days ($p<0.001$) and walked or participated in other forms of PA despite pain for 1.5 more days ($p<0.001$) compared to C.

Discussion: The program improved coping, pain, physical functioning, and PA in individuals with diabetes and chronic pain. Such interventions hold promise to improve health of residents of rural and under-resourced communities.

Peer Support Reduces Hospitalizations and Emergent Services for Individuals with Diabetes and Depressive Symptoms

Andrea Cherrington, MD; Yulia Khodneva, MD, PhD; Joshua Richman, MD, PhD; Susan Andreae, MPH; Christopher Gamboa, MPH; Monika Safford, MD

Background: Comorbid depression is associated with increased health care utilization and cost in individuals with diabetes (DM). We examined the effects of a peer support intervention on emergency services (ES) and hospital utilization in a sample of diabetic individuals with and without depressive symptoms.

Methods: The 1-year ENCOURAGE trial included 424 persons with DM living in rural Alabama. Intervention (INT) participants worked with community volunteers who provided peer support and coaching; control (C) arm participants received usual care. Depressive symptoms were assessed with the Patient Health Questionnaire (PHQ-8, range 0-24; 5 indicates mild and 10 indicates moderate depressive symptoms). ES and hospital utilization were measured by participant self-report. Poisson regression using Generalized Estimating Equations examined differences in utilization per year attributable to the INT for those with PHQ-8 =5 and PHQ-8 <5 (and, separately, >10 and <10), controlling for characteristics with imbalance across treatment arms (income and education).

Results: The 168 INT and 187 C participants with follow-up data were aged 60.2 ±12.1 years, 87% African American, 75% female, and 39% insulin-treated. At baseline, half had PHQ >5 (52% of INT and 48% of C participants, $p=0.37$) and 1/4 had PHQ >10 (25% of INT and 26% of C participants, $p=1.0$). Among those with PHQ-8 >5, baseline mean ES visits were 0.67 for INT vs. 0.70 for C, $p=0.49$, and mean hospitalizations were 0.19 for INT vs. 0.46 for C, $p=0.74$. Among those with PHQ <5, baseline mean ES visits were 0.23 for INT vs. 0.37 for C, $p=0.26$, and mean hospitalizations were 0.32 for INT vs. 0.19 for C, $p=0.34$. In adjusted models, among those with PHQ-8 >5, the intervention resulted in fewer ES visits (incidence rate ratio [IRR] 0.46 [95% CI 0.26-0.81]) and hospitalizations (IRR 0.27 [0.13-0.54]), a difference not seen among those with PHQ-8 <5 (IRR 1.04 [0.45-2.38] for ES, IRR 0.97 [0.26-3.65] for hospitalization). Findings were similar for those with PHQ-8 >10.

Conclusion: Peer support substantially lowered ES visits and hospitalizations for those with depressive symptoms, but not for those without depressive symptoms; these findings can guide resource allocation for population health management.

Antoine-LaVigne, Donna, PhD, MPH, MEd
Jackson State University, Jackson Heart Study

Tuesday – Centennial I

Cardiovascular Disease Management through Engaging the Jackson Heart Study Community

Donna Antoine-LaVigne, PhD, MPH, MEd; Clifton Addison, PhD; Brenda Jenkins, PhD; Marinelle Payton, MD, PhD; Lavon Young; Gregory Wilson

Introduction: One of the major goals of the Community Outreach Center (CORC) of the Jackson Heart Study (JHS) is to find ways to reach the community so that research findings can be readily disseminated, and to facilitate the initiation of successful interventions with our community partners. Our ultimate goal is to make a difference in the prevalence of cardiovascular disease (CVD) among African Americans in Mississippi. To this end, we continuously pursue avenues for translating research findings to the community, making sure that the results from scientific studies are widely communicated in a culturally appropriate and timely manner.

This presentation highlights the strategies used by CORC to lay a solid foundation within the JHS study area so that, together, we can continue to promote the type of awareness and capacity building that helps to facilitate effective cardiovascular disease management.

Methods: Through our numerous community events, CORC staff solicited input from JHS study participants and other interested community members regarding the most appropriate and efficient methods to disseminate research findings. CORC staff also sought contributions from study participants about their chosen methods and manner of information dissemination.

Results: The CORC/Community partners venture devised some strategies/recommendations to ensure continuous and effective knowledge dissemination. They comprise: (1) Including within the budget dedicated financial support for dissemination efforts, (2) Generating a timeline for dissemination efforts, and (3) Developing a list of resources that can facilitate information dissemination to various audiences.

Conclusions: It is imperative that we employ professionals who display the desire and expertise in communicating effectively to community groups and stakeholders. CORC uses multiple methods to disseminate findings to study participants, and we provide on a regular basis updates about our progress to not only the funders, but also to the community members, agencies and service providers within the JHS study area.

Badiga, Suguna, PhD
UAB School of Health Professions, Nutrition Sciences

Tuesday – Centennial II

The Radical Differences in Survival Outcome Differs by the Histological Subtype of Cervical Cancer

Suguna Badiga, PhD; Walter Bell, MD; Andres Azuero, PhD, MBA, MSc; Michelle Moses Chambers; Esther Suswam, DVM, PhD; Roland Matthews; Chandrika Piyathilake, PhD

Purpose: Despite the fact that several previous studies have documented racial differences in the survival rates of cervical cancer (CC), to our knowledge, no studies have documented racial differences in the survival rates by the histological subtypes of CCs. The purpose of our study was to determine racial differences in the survival of women diagnosed with the two most prevalent histological subtypes of CC, squamous cell carcinomas (SCCs) and adenocarcinoma (ACs).

Methods: The subjects included 775 women (African American (AA)=237 and Caucasian American (CA)=538) diagnosed with CC between 2000-2010 and have undergone treatment (surgery, chemotherapy or radiation (alone/combined) at the UAB hospital and had information on demographics (age, race), lifestyle habits (smoking/alcohol consumption), stage of the CC, histopathological diagnoses and >four years of survival data. We determined the relationship between race of the patient and survival separately for SCCs and ACs after adjusting for covariates. The overall survival was defined as the time elapsed between the date of diagnosis and death or date of last contact. Survival curves were estimated by the Kaplan-Meier method and a multivariate analysis was performed using Cox's proportional hazard regression model.

Results: The study included 617 SCCs and 120 ACs. In Cox model analysis, there was no significant difference in survival by race among women diagnosed with SCCs. Among women diagnosed with ACs, however, we observed that AA women were significantly more likely to die earlier (HR=2.3, p=0.03) compared to CA women. In both models, we observed that women who were older, presented with higher stage of diagnosis and have not undergone surgery were more likely to have poor survival.

Conclusion: To our knowledge, this is the first study to document racial differences in survival by the most prevalent histological subtypes of CCs. It is likely that race specific molecular features of the cancer such as DNA methylation (DNAm) or lifestyle factors that are likely to influence DNAm may explain the observed results. As we strive to personalize cancer therapy, it is imperative that we understand these lifestyle-related molecular differences so that we may apply this knowledge to overcome racial disparities in CC outcomes.

UAB School of Nursing, Center for Nursing Research

Think Well: Healthy Living to Improve Cognitive Function Engaging African American Breast Cancer Survivors with Chemotherapy-Induced Cognitive Impairment

Jennifer Bail, BSN, RN; Silvia Gisiger-Camata, MPH, RN; Timiya S. Nolan, MSN, CRNP; Karen Meneses, PhD, RN, FAAN

Purpose: Cognitive impairment (CI) affects 21% - 90% of breast cancer survivors (BCS). CI symptoms include forgetfulness, lack of attention, confusion, memory loss, fatigue, and impaired executive functioning. While National Comprehensive Cancer Network guidelines for CI interventions are available, BCS do not routinely receive instruction about CI management. Moreover, little is known about African American (AA) BCS's understanding about CI and there are no culturally adapted CI programs available for AA women. This paper will describe: (1) Think Well: Healthy Living to Improve Cognitive Function; (2) explain the process of adapting Think Well (TW) for AA women; (3) explore best practice for developing community partnerships to engage AA BCS with CI; and (4) present results of TW delivery in the AA community.

Methods: *Think Well: Healthy Living to Improve Cognitive Function* is an educational cognitive health program consisting of: (1) breast health; (2) healthy living; and (3) brain exercises. TW was adapted for AA women through the use of culturally relevant language and images, and feasibility testing was conducted. Key community-based participatory research activities were used to connect with community leaders through engaging leaders in the planning, delivery, and evaluation of TW. Following each seminar, participants were asked to complete a 28 item TW Survey and socioeconomic questionnaire.

Results: Community partnerships were developed and maintained with three urban AA churches in Birmingham. Through these partnerships, three TW seminars were successfully planned and delivered to 172 participants. Forty-seven participants were BCS; 91% were AA, 84% lived in Jefferson County, 47% were diagnosed before menopause, 41% were single or divorced, 65% were working full-time, and 10% were living below the poverty line. Cultural relevance was rated 4.74 on a 5-point Likert scale (1=poor to 5=excellent) and overall quality was rated 4.84. Additionally, 86.4% reported interest in future cognitive health programs. Preferred delivery method was via web-based or seminar.

Discussion/Conclusions: Our work illustrates the feasibility of engaging AA BCS with CI. Development of new community partners is planned. Future outreach will include new and maintained partners. Preliminary data indicate that TW is culturally acceptable for AA BCS. Future dissemination will consider web-based delivery.

Acknowledgment: Think Well: Healthy Living to Cognitive Function is supported by a grant from the North Central Alabama Affiliate of Susan G. Komen.

UAB School of Medicine, Genetics

Genetic Differences in African and Caucasian Populations in Nuclear Gene Encoding Mitochondria Localized POLG1 Polymerase

Prachi Bajpai, PhD; Vinodh Srinivasasainagendra, PhD; Hemant K. Tiwari, PhD; Keshav K. Singh, PhD

Purpose: Recent completion of the Human Genome Project, has significantly advanced our understanding on human health. Genome-wide association studies have been completely revolutionized with advent and use of SNPs. These not only affect biological functions but are also signatures markers in association studies of individuals in a population. SNPs could have different allelic frequency from one population to another, thus contributing to large fraction of genetic diversity in ethnic population which would help explain the differences in genetic predisposition and susceptibility from population to another. Our previous study revealed that mtDNA content is low in African American (AA) when compared to Caucasian American (CA). Since catalytic subunit of DNA polymerase gamma (POLG1) performs critical function in mtDNA replication and repair and dysfunctional POLG1 can impair integrity of mtDNA causing reduction of mtDNA, we were thus interested to analyze if the observed low mtDNA content, has any association with mutations in POLG1 gene, and is there any link among the differences in allelic frequencies of mutated POLG1 among the two American populations with different ancestry.

Methods: We analyzed POLG1 from existing 1000 Genome database for SNP analysis between AA and CA populations.

Results: More than 150 mutations reported so far spanning all three domains of POLG1; exonuclease, linker and polymerase were analyzed. A very striking difference among the two populations was observed after the analysis. These mutations are widely spread from 5'UTR, exonic and intronic regions to 3'UTR of POLG1 gene. Interestingly five exonic mutations R193Q, I284, N630, A703, F749S and some SNPs in intronic (rs41544115) and 3'UTR (rs1860021) are only reported in AA with no changed allele found in CA. Where the missense mutation directly reflects the change in protein the silent mutations could also have potential clinical significance. In POLG1, mutations from both the classes (missense and synonymous) have been reported to render the changed allele more benign.

Discussion/Conclusion: Mutations in POLG1 could be the underlying genetic mechanism involved in low mtDNA content observed among AA and CA populations. Functional relevance of these AA specific allele is being analyzed.

Barrington, Wendy, MPH

Poster 5

University of Washington, School of Arts and Humanities, Psychosocial and Community Health

Associations of Obesity with Prostate Cancer Risk Differ between U.S. African American and non-Hispanic White Men: Results from the Selenium and Vitamin E Cancer Prevention Trial

Wendy E. Barrington, MPH; Jeannette M. Schenk; Ruth Etzioni; Kathryn B. Arnold; Marian L. Neuhouser; Ian M. Thompson, Jr.; M. Scott Lucia; Alan R. Kristal

Background: African American (AA) men have the highest rates of prostate cancer incidence and mortality in the US. Understanding underlying reasons for this disparity could identify preventive interventions important to AA men.

Purpose: To determine whether the association of obesity with prostate cancer risk differs between AA and non-Hispanic white (NHW) men and whether obesity modifies the excess risk associated with AA race.

Methods: This is a prospective study among 3398 AA and 22673 NHW men who participated in the Selenium and Vitamin E Cancer Prevention Trial (2001-2011). Using Cox regression, we estimated hazard ratios (HRs) and corresponding 95% confidence intervals (CIs) associated with AA and NHW race and body mass index (BMI) [kg/m^2] on total, low- (Gleason score <7), and high-grade (Gleason score \geq 7) prostate cancer incidence while adjusting for relevant covariates.

Results: There were 270, 148, and 88 cases of total, low-, and high-grade prostate cancers among AA men and a corresponding 1453, 898, and 441 cases in NHW men (median follow-up of 5.6 years). BMI was not associated with risk of total cancer among NHW men, but was positively associated with risk among AA men (BMI <25 kg/m^2 vs. \geq 35 kg/m^2 , HR= 1.49; 95% CI: 0.95, 2.34; $P_{\text{trend}}=0.03$). Consequently, the risk associated with AA race increased from 28% (HR=1.28; 95% CI: 0.91, 1.80) among men with BMI <25 kg/m^2 to 103% (HR=2.03; 95% CI: 1.38, 2.98) among AA men with BMI \geq 35 kg/m^2 ($P_{\text{trend}}=0.03$). BMI was inversely associated with low-grade prostate cancer risk among NHW men (BMI <25 kg/m^2 vs. \geq 35 kg/m^2 , HR= 0.80; 95%CI: 0.58, 1.09; $P_{\text{trend}}=0.02$), but positively associated with risk among AA men (BMI <25 kg/m^2 vs. \geq 35 kg/m^2 , HR= 1.77; 95% CI: 1.14, 2.76; $P_{\text{trend}}=0.05$). BMI was positively associated with risk of high-grade prostate cancer in both NHW (BMI <25 kg/m^2 vs. \geq 35 kg/m^2 , HR=1.33; 95% CI: 0.90, 1.97; $P_{\text{trend}}=0.01$) and AA men (BMI <25 kg/m^2 vs. \geq 35 kg/m^2 , HR= 1.81; 95%CI: 0.79, 4.11; $P_{\text{trend}}=0.02$), but associations were not significantly different.

Conclusion: Obesity is more strongly associated with increased prostate cancer risk among AA than NHW men and reducing obesity among AA men could reduce the racial disparity in cancer incidence. Research is needed to test mechanisms underpinning these associations.

Bishop, LaToya, PhD, MPH

Poster 6

UAB School of Education

A Systematic Evaluation of an Educational Bible Study Class Focusing on Diabetes Prevention (Just Having C.H.U.R.C.H): Controlling How Unhealthy Regimens Can Hurt

LaToya R. Bishop, PhD, MPH

Purpose: Diabetes is a growing problem in public health and the African American population. Preventive measures such as changes in diet, increasing physical activity, and weight control are behaviors that will lead to a healthier lifestyle and prevent the onset of diabetes. The purpose of this study was to determine if the National Diabetes Education Program Power to Prevent curriculum improved diabetes prevention perceptions and behaviors among participants receiving the curriculum.

Methods: The study tested the effectiveness of Power to Prevent specifically designed for African Americans, paired with scripture in a bible school format, for diabetes prevention in two local Baptist churches in Birmingham, AL. This study utilized a convenience sample of 63 (n=31 in the comparison group and n= 32 in the intervention group) African American men and women aged 20 years and older. The study measured participants' risk levels, perceptions, and risk management behaviors as they relate to diabetes prevention. A 2x2 repeated measures ANOVA was performed to determine if a difference existed between the intervention and comparison participants at pretest and/or posttest. Risk levels (Diabetes Risk Test scores); perceptions (Health Belief Model constructs of perceived susceptibility, severity, benefits, and barriers); and risk management behaviors (exercise, health behaviors, and nutrition) were assessed.

Results: Although majority of the findings were not significant among participants in the intervention and comparisons groups at pretest and posttest, there was a significant group-by-test interaction effect for perceived severity.

Discussion/Conclusion: While this study modified the time frame of the curriculum and had a small sample size, future studies implementing the curriculum should actively enroll a larger number of participants in *Power to Prevent* in more churches in both urban and rural areas to possibly have statistical significant. Minor changes to the curriculum may be needed; nevertheless, reducing the rate of diabetes is an important step to improving the health of those at risk.

UAB School of Public Health, Epidemiology

Healthy Lifestyle Factors Are Uncommon and Associated with Reduced Risk of Cardiovascular Disease and Mortality in Candidates for Primary Prevention with Statin Therapy

John N. Booth, III, MSPH; Lisandro D. Colantonio, MD; Mary Cushman, MD; George Howard, DrPH; Monika Safford, MD; Maciej Banach, MD; Kristi Reynolds, MD; Paul Muntner, PhD

Introduction/Purpose: Adults with a 10 year predicted atherosclerotic cardiovascular disease (ASCVD) risk $\geq 7.5\%$ are candidates for statin therapy for primary prevention. Lifestyle interventions may benefit this high risk group. Hypothesis: We estimated the use of healthy lifestyles and their association with ASCVD and mortality risk in adults with a 10 year predicted ASCVD risk $\geq 7.5\%$.

Methods: The REasons for Geographic and Racial Differences in Stroke (REGARDS) cohort study enrolled adults ≥ 45 years old from the 48 continental US states and District of Columbia in January 2003 - October 2007 (n=30,239). The final sample was restricted to adults 45 - 79 years old, without ASCVD or diabetes history, low density lipoprotein cholesterol 70 - 189 mg/dL and a 10 year predicted ASCVD risk $\geq 7.5\%$ (n=5,709). Ideal lifestyle factors, assessed during an in-home physical exam and through surveys, included non-obese waist circumference ($< 88 / < 102$ cm for women/men), physical activity (PA) ≥ 4 times per week, nonsmoking, low saturated fat intake ($< 7.0\%$ of daily calories) and highest Mediterranean diet score quartile. Participants were contacted every 6 months to detect incident ASCVD events (nonfatal/fatal stroke, nonfatal myocardial infarction or coronary heart disease death) and all-cause mortality for adjudication.

Results: The prevalence of ideal lifestyles was 56.9% for non-obesity, 33.5% for PA, 80.7% for nonsmoking, 7.1% for low saturated fat intake, and 27.6% for highest Mediterranean diet score quartile. Overall, 4.8%, 27.2%, 35.5%, 23.5% and 9.0% had 0, 1, 2, 3, and ≥ 4 of the 5 ideal lifestyles. There were 377 ASCVD events and 471 deaths (median follow up: 5.8 and 6.0 years, respectively). After multivariable adjustment, there was a graded and lower risk for incident ASCVD and mortality associated with 1, 2, 3 and ≥ 4 versus 0 ideal lifestyles (hazard ratios (95% confidence intervals): 0.55 (0.36-0.84), 0.42 (0.28-0.65), 0.38 (0.24-0.59) and 0.25 (0.14-0.48), p-trend < 0.001). The risk for death associated with a higher number of healthy lifestyle factors did not differ by race (p-interaction > 0.05).

Discussion/Conclusion: Healthy lifestyles were underused in adults with a 10 year predicted ASCVD risk $\geq 7.5\%$. Improving lifestyle factors may significantly reduce ASCVD and delay mortality in this high risk population.

Budhwani, Henna, PhD

Wednesday – Centennial II

UAB School of Public Health, Health Care Organization and Policy, UAB Sparkman Center for Global Health

Generalized Anxiety Disorder in Racial and Ethnic Minorities: A Case of Nativity and Contextual Factors

Henna Budhwani, PhD, MPH; Kristine R. Hearld, PhD; Daniel Chavez-Yenter, MPH

Background: Minorities comprise more than one third of the U.S., and research on the correlates and causes of depression, anxiety, and other mental illnesses have yielded mixed results in minority groups necessitating an understanding of causes and correlates of health. Thus, the aim of this paper is to evaluate the relationship between minority status, contextual factors, and lifetime Generalized Anxiety Disorder.

Methods: Logistic regression models were implemented, comparing immigrants to their American-born counterparts as well as to American-born Whites.

Results: Foreign-born Afro-Caribbeans exhibited lower rates of lifetime GAD. A lower percentage of foreign-born minorities met the criteria for GAD as compared to their American-born counterparts, and all racial and ethnic groups met the criteria for lifetime GAD at a lower rate as compared to American-born Whites.

Discussion: By using theory proactively and including contextual factors, this multi-faceted approach to health disparities research yielded findings which both supported historic beliefs but created opportunities for supplemental research looking at immigrants and GAD. Key findings were that health lifestyle choices and exposure to discrimination significantly affected the chance of having GAD. Nativity was protective; however, its effect was ameliorated by exposure to discrimination or engagement in alcohol abuse. Thus, this study offers practical insight into environmental factors for clinicians caring for racial and ethnic minorities diagnosed with GAD.

UAB College of Arts and Sciences, Birmingham VA Medical Center

Medical Treatment Decisions: Impact of Source of Motivation to Control Prejudice

Neena Cassell, MA

Purpose: A growing body of research has consistently demonstrated that treatment decisions for African American patients differ from that of similar White patients across various disease categories. Researchers have begun to focus on implicit bias as a reason for disparate treatment decisions. This study has shifted the focus toward determining the impact of individual differences among physicians that may influence implicit bias, specifically their source of motivation to control prejudice (internal and external), which may ultimately impact treatment decisions. The synthesis of Self-Determination Theory and Ironic Process Theory provide a guiding framework for explaining the relation between motivations to control prejudice and implicit bias. The present study had three aims: 1) to evaluate if there are differences in treatment decisions among physicians for African American patients compared to White patients in a current sample of medical residents; 2) to evaluate if source of motivation (internal and external motivation) is related to the expression of implicit racial bias; and 3) to assess whether source of motivation to control prejudice and patient race interact with implicit bias to influence treatment decisions.

Methods: A sample of 216 medical residents specializing in internal medicine, emergency medicine, and family/general medicine completed an online vignette in which they read the same description of a patient while being randomly assigned to see an African American patient or a White patient. They also completed various survey measures assessing motivation to control prejudice (internal and external) and implicit bias.

Results: Several regressions suggest that when controlling for implicit bias, as external motivation to control prejudice increases the odds of a decision to recommend thrombolysis for African American patients decreases. However, increases in internal motivation to control prejudice leads to an increase in the odds of a decision to recommend thrombolysis for African American patients.

Conclusions: Overall, internal motivation to control prejudice in particular may help predict which physicians are best equipped to control implicit bias, likely resulting in nondiscriminatory treatment decisions despite racial profile of patients and external stresses. Understanding the factors that determine who is more or less effective at controlling bias might aid in the elimination of disparate treatment decisions.

Cobran, Ewan, PhD

Tuesday – Arlington

University of Georgia College of Pharmacy

Racial Differences in Diffusion of Intensity-Modulated Radiation Therapy for Localized Prostate Cancer

Ewan K. Cobran, PhD; Paul A. Godley, MD, PhD; William Carpenter, PhD

Objectives: Intensity-modulated radiation therapy (IMRT), an innovative treatment option for prostate cancer, has rapidly diffused over the past decade. To inform our understanding of racial disparities in prostate cancer treatment and outcomes, this study compared diffusion of intensity-modulated radiation therapy (IMRT) in African American (AA) and Caucasian (CA) prostate cancer patients during the early years of IMRT diffusion using the Surveillance, Epidemiologic and End Results (SEER)-Medicare linked database.

Methods: A retrospective cohort of 947 AA and 10,028 CA patients diagnosed with localized prostate cancer from 2002 through 2006, who were treated with either IMRT or Non-IMRT as primary treatment within one year of diagnoses was constructed. Logistic regression was used to examine potential differences in diffusion of IMRT in AA and CA patients, while adjusting for socioeconomic and clinical covariates.

Results: A significantly greater proportion of CA compared to AA patients received IMRT for localized prostate cancer (53% vs. 45%, $p < 0.001$). Racial differences were similar in multivariable analysis though did not achieve statistical significance (crude odds ratio [OR] = 0.73; 95% CI: 0.64, 0.83), as time and factors associated with race (socioeconomic, geographic, and tumor related factors) explained the preponderance of variance in use of IMRT.

Conclusion: Further research examining improved access to innovative cancer treatment, and technologies is essential to reducing racial disparities in cancer care.

Cunningham-Erves, Jennifer, PhD, MAEd, MS
Meharry Medical College, Surgery

Tuesday – Centennial II

Identifying Factors Associated with African American Maternal Intentions to HPV Vaccinate Their Daughters in Alabama: A Sequential Mixed Methods Study

Jennifer Cunningham-Erves, PhD, MAEd, MS; Laura Forbes, PhD, MCHES; Nataliya Ivankova, PhD; Marcia O'Neal, PhD

Purpose: African American (AA) women continue to suffer disproportionately from cervical cancer nationally and statewide. The human papillomavirus (HPV) vaccination is a preventive strategy that may address this disparity in this group. The purpose of this sequential, mixed methods study was to understand factors influencing AA maternal intentions to get their daughters aged 9-12 vaccinated in Alabama to inform the development of a culturally, tailored intervention.

Methods: In the quantitative phase of the study, the research focused on identifying the predictive power of eleven variables (e.g., subjective norms) associated with maternal intentions to vaccinate their daughters. Data were collected from a convenience sample of 242 AA women in Alabama, and analyzed using a binary, logistic regression analysis. Nine participants were purposefully selected for the qualitative phase. Five participants with positive intentions and four with negative intentions were interviewed to explore the quantitative findings about the influence of selected factors in depth. A thematic analysis of interview data occurred at two levels: within and across participants.

Results: Quantitative findings indicated perceived barriers (information and daughter's age), culture (future-time orientation), and subjective norms were significant predictors ($p \leq .05$) of maternal intentions to get their daughters HPV vaccinated. The analysis of the interview data yielded seven themes related to maternal intentions to vaccinate their daughters against HPV: role of knowledge, interpersonal influences, personal experiences, cultural influences, benefits of HPV vaccination, barriers of HPV vaccination, and vaccination uptake recommendations. Perceived barriers and cultural influences were the most commonly discussed themes by AA mothers.

Discussion/Conclusion: Data from the quantitative and qualitative phases were integrated for purposes of informing the overall outcome. This research indicates a need for a theoretical, culturally-tailored intervention to influence AA maternal intentions to vaccinate their daughters aged 9-12 years. The intervention should include educational components focusing on adolescent sexual behaviors, the purpose/benefits and side effects of the vaccine, and rationale for the recommended age of vaccinating girls as young as nine. Public health practitioners should work to include pediatricians in support of this educational intervention since AA mothers consistently cited them as the most credible source of HPV preventive information.

Davis, Robin, MS

Poster 9

UAB School of Health Professions, Genetics

Evaluation of an Educational and Risk Screening Tool on Hereditary Breast Cancer for Minority Communities

Robin Davis, MS; Jessica Denton, MS, CGC; R. Lynn Holt, MS, CGC

Purpose: Hereditary Breast and Ovarian Cancer Syndrome (HBOC) is an inherited predisposition to cancer with up to 87% risk for women to develop breast cancer. Distinguishing HBOC from a sporadically occurring cancer can dramatically change health care management for an affected woman. Further, this diagnosis can change management and prevention strategies for multiple generations of her family. Racial disparities exist that limit African American women's education of HBOC and their access to cancer treatment services and resources.

Methods: This project introduces an educational and risk screening tool designed to raise awareness of HBOC among African American women in Birmingham, Alabama. The authors used insights from African American community leaders on how to best communicate with and engage this population to develop the tool's content and format. We distributed our tool at a free, preventative healthcare clinic for pilot testing. The self-directed tool included information about HBOC, a brief family history questionnaire, and guidelines for general population screening as well as suggestions for additional genetic evaluation if necessary.

Results: Thirty-nine African American women completed an evaluation survey after using the risk assessment tool. The survey addressed participants' overall experience with the tool, change in HBOC interest and knowledge, personal cancer risk perception, and preferences for receiving and sharing HBOC information with others. Participants demonstrated the ability to recall hereditary cancer risk factors from the tool (69.2%, $n=39$). Many participants also indicated that they planned to use the tool to facilitate a discussion with their healthcare provider (72.2%, $n=36$).

Discussion/Conclusion: This study contributes to limited research on the disparity of hereditary cancer education materials in the target community. The study goes beyond previous efforts by incorporating a preliminary risk assessment into the tool design. Our tool was reviewed positively by participants and results suggest that this type of tool could help address an unmet desire within this community to examine and learn from one's own family health history. Although further tool revisions are necessary, this study demonstrates that collaboratively designed, culturally targeted educational materials may be useful in reducing racial disparity in HBOC education.

Dobbs, Jamel

Poster 10

Tuskegee University, School of Arts and Humanities, Biology

Investigating the Functionally Important Disease Linked SNPs in Type 2 Diabetes Risk Gene CDKAL1

Jamel Dobbs; Colin Palmer, PhD; Alexander Banks, PhD

Background: Type 2 diabetes (T2D) is the most common form of diabetes. Approximately 29.1 million Americans are affected by this disease. The gene CDKAL1 has been linked to type 2 diabetes by previous genome wide association studies (GWAS). CDKAL1 contains a dozen of intronic single nucleotide polymorphisms (SNPs) that have been strongly associated with increased risk of developing T2D. Although many risk-associated SNPs have been identified in CDKAL1, it is unknown which SNPs contribute to T2D. For my summer research project in the Banks Lab, we focused on identifying which SNP or SNPs in CDKAL1 have functional importance for T2D disease development.

Methods: To identify which CDKAL1 SNPs are critical, we first defined twenty 1-2 kb promoter bash regions (PBR) in CDKAL1 introns. These PBRs contain the different SNPs linked to T2D. We ran PCRs to make copies of different PBRs from the genomic DNA of five human adipose tissue samples. Next, we cloned the PBR segments in TOPO cloning vectors. We used restriction digest to cut the PBRs out of the TOPO cloning vector. Then, we performed DNA sequencing on the PBR segment in the TOPO vector to determine if it contained the reference or T2D risk-associated SNPs. The PBR segments were then cloned into a Nanoluc reporter vector.

Results: We have successfully cloned reference and risk alleles of four PBRs into Nanoluc vectors. These Nanoluc vectors with PBRs cloned into them will be transfected into HEK 293 cells.

Conclusions: Using a dual luciferase assay we will evaluate which PBR segments affect luciferase expression. We hope to identify if the risk allele of any PB segment fragment shows effects on gene expression as reported by luciferase expression.

Dowla, Shima

Poster 11

UAB School of Medicine

Primary Care Provider, Peer Advisor, and Patient-reported Barriers to Improvement of Cardiovascular Health for Individuals Living in the Alabama Black Belt

Shima Dowla; Susan Andreae; Monika Safford, MD

Purpose: Despite advances in prevention, management, and treatment, cardiovascular disease (CVD) remains the leading cause of death in the United States, with Alabama among the states having the most alarming statistics. To help combat this disease, the American Heart Association created several recommendations for cardiovascular health improvement, known as "Life's Simple 7", involving keeping blood pressure, cholesterol, blood sugar, and weight in normal ranges, as well as lifestyle modifications including eating a healthy diet, exercising and not smoking. People who reside in Alabama's rural Black Belt region are especially prone to poor health outcomes, including poor measures on Life's Simple 7. Our semi-qualitative research studied the barriers to achieving Life's Simple 7 in the Alabama Black Belt from the perspective of 3 stakeholder groups (primary care providers, peer advisors, and patients) using the nominal group technique (NGT).

Methods: The NGT is a form of information gathering in which a facilitator, after posing a question, solicits responses from all participants, thereby generating a visible list for further evaluation. The result of each nominal group is a prioritized list of barriers, from the perspective of that group's participants. The top priority barriers from each group were standardized across all groups and categorized using the Socio-Ecological Framework, which conceptualizes barriers at the individual, interpersonal, organizational, community, and societal levels.

Results: Results portrayed a high level of agreement between the nominal groups of the peer advisors and patients. Lack of concordance between the two physician nominal groups suggests our inability to reach saturation. Peer advisors focused on barriers that they could specifically help patients with, namely those at the interpersonal and community levels, whereas patients tended to focus on their own personal barriers. Physicians portrayed a more holistic understanding of barriers, citing individual, interpersonal, organizational, and community level barriers.

Discussion/Conclusions: It is imperative to engage and understand the perspectives of stakeholders prior to intervention development; this study revealed that the three stakeholders emphasized barriers at different socio-ecological levels. To maximize engagement, these results can be used to design an intervention that addresses the expressed concerns of each stakeholder.

The University of Southern Mississippi, International Development and International Affairs

Of Resilience, Recovery, and Religious Institutions: The Role of Community Churches in Disaster Preparation and Response

Candace Forbes Bright, PhD; Amye Broyles; Roma Hanks, PhD; Michelle Martin, PhD; Edward Sayre, PhD

Purpose: The purpose of this study is to advance the understanding of religious institutions in disaster resilience and recovery. Churches play an integral part of community recovery in serving as an information outlet in the pre- and post-disaster stages, in providing physical resources for recovery, and in providing psychological support throughout the disaster phases. Churches are often central actors in individual's social networks and as so, one's religious connections are important considerations in his/her social determinants of health.

Methods: To serve this purpose, the researchers conducted 600 surveys with individuals impacted by a Gulf region disaster and included questions on religious attendance prior to and after the disaster, being unable to attend religious services due to the disaster, resources received from churches, churches as a source of information, and volunteer work with their church.

Results: The data collected through the survey provides that religious attendance is associated with less impact from disaster and faster recovery. Churches served as a primary source of information following disasters and many individuals relied their church for much needed resources following disasters.

Discussion/Conclusions: The researchers are able to use the findings to develop a timeline of the role of churches/religious institutions in disasters. Using a four-phase model (socio-ecological model of disaster impact and recovery), we can apply the role of churches to each of the four phases. This data can then be used by emergency planners and community leaders to better prepare for and assist in the recovery from future disasters.

Funchess, Tanya, DHA, MPH, MSM

Tuesday – University

Mississippi Department of Health

Training Community Members to Be Better Consumers of Research

Tanya Funchess, DHA, MPH, MSM; Candice Green, MPH; Victoria Walker, MPH; Georgette Powell, BS

Background: The intent of Community-based Participatory Research is to bring together researchers and communities to establish trust, foster co-learning, share power, build capacity, and examine and address community-identified needs and health problems (Israel, Eng, Schulz, & Parker, 2005). It is suggested that often the missing link to health promotion activities and disease prevention initiatives is the engagement of community members as active participants of the research process (Minkler, 2004; Minkler & Wallerstein, 2003). To ensure community members become better consumers of research, the Community Research Fellows Training (CRFT) program was implemented in Jackson, Mississippi.

Objective/Purpose: The training (a) engages community members to be better consumers of research, (b) promotes and establishes partnerships between academia and community people, (c) enhances community knowledge of public health research, (d) allows participants an opportunity to apply what they have learned through the implementation of team projects.

Methods: A steering committee and community advisory board was formed to assist in guiding the training process, setting criteria to select class participants, and recruiting both participants and faculty members. Faculty from various universities and health care organizations volunteered their time to facilitate the training sessions. A baseline, mid-term, and end-of-course assessment were conducted to determine knowledge of key research concepts, an increase in participant's knowledge from baseline to final assessment, and the fellows' satisfaction with the training.

Results: Thirty-seven applicants applied for the community research training program. Twenty-seven participants were selected to participate in the training program. Twenty-five participants completed the program. All participants showed an increase in knowledge from baseline to final assessment. All faculty members expressed they would teach in the program again. Two teams (5 members each) applied for seed funding to implement a project at the local level.

Discussion: The CRFT training program increased community member's knowledge about public health research while also creating a cadre of trained community members. The implications for health policy are that community members are equipped with knowledge to advocate for policy, system, and environmental change in their communities.

Guerreso, Heather, BS

Poster 13

Georgia Southern University, Jiann-Ping Hsu College of Public Health

Racial Differences in Psychosocial Barriers to Initiate Prostate Cancer Treatment Information Seeking

Heather Guerreso, BS; Jarrett Johnson, MS; Wayne Lawrence, BS; Brandon Wilcher, BS; Levi Ross, PhD

Purpose: All men diagnosed with prostate cancer must undergo the complex process of treatment decision-making. Research indicates that most men are not prepared to fully interact with the information environment when they are initially diagnosed. The reasons behind this lack of preparedness are not fully understood. The purpose of this research was to explore the different types of psychosocial assistance that men might need to help them begin gathering treatment information.

Methods: A purposive sample of 63 African American and Caucasian men treated for or actively monitoring localized prostate cancer (Stage T1 or T2) was recruited to participate. All recruitment was completed via cancer registries, newspaper ads, and word-of-mouth. All participants completed a 30-45 minute self-administered survey on a laptop or touchscreen computer. Data collected included: (1) demographic information and (2) information about self-reported (a) confidence, (b) confusion, (c) worry, (d) comfort, (e) ease, and (f) organization of the initial searches for treatment information. All men received a \$25.00 honorarium for participating.

Results: The mean age of participants was 64.17 years. Participants were six months to eleven years post prostate cancer diagnosis ($\mu= 5.21$ years, $SD= 3.23$). At the initial search for treatment information, the majority of men (82.5%) were not confident they knew all of the right information to look for and were not confident they could find answers for all of their questions (79.3%). When psychosocial barriers were compared by race, one significant relationship was found. A greater proportion of African Americans (19.2%) found the initial information gathering process more difficult than their Caucasian counterparts (13.5%) ($p < .05$).

Conclusion: Knowing what to look for and where to find answers is a common problem for African American and Caucasian prostate cancer patients. Future research should be conducted that focuses on interventions to reduce these barriers.

Hansen, Barbara, MA

Poster 14

UAB College of Arts and Sciences, Sociology

Psychogenic Non-epileptic Seizures and Co-occurring Mood Disorders: Do Social Variables Matter?

Barbara Hansen, MA; Magdalena Szaflarski, PhD; Jerzy P. Szaflarski, MD, PhD

Purpose: More than 80% of the ~300,000 Americans suffering from psychogenic non-epileptic seizures (PNES) have co-occurring mood/anxiety disorders. Both PNES and psychiatric conditions are frequently linked to traumatic events or social disadvantage. This study examines how current research addresses social variables (gender, age, and education) in patients with PNES with co-occurring psychiatric diagnoses.

Methods: A systematic literature review was performed using SCOPUS with keywords "psychogenic non-epileptic seizure", "anxiety", "depression", and "mood disorder." The search was limited to articles in English with no date limit set. Abstracts were reviewed; only studies that were social in nature were included. Data on gender, age, and education were identified for each study, extracted, and entered into a SPSS v.22 spreadsheet noting statistical results associated with those variables. Data were analyzed for frequencies/means.

Results: With 164 initial articles, filtering resulted in 30 articles for inclusion. Gender was noted in all articles (100%), followed by age (87%), and education level (70%). The studies typically focused on these variables in the context of demographic characteristics regardless of co-occurring psychiatric diagnoses. The total number of participants across all 30 studies was 2,133, all with PNES. The average female prevalence of all subjects was 77.28%. The mean respondent age was 37.45 years. Only 3 subjects were over the age of 65. Roughly half of the studies collected patients' education (mean 13 years, 53% high-school graduates); only 4 factored education into analyses.

Discussion/Conclusion: The intersection of social variables with PNES symptoms needs to be examined more thoroughly rather than just reporting preponderance, especially as PNES co-occurs with psychiatric comorbidities. With the general understanding that female gender, older age, and low levels of education increase the risk of mental health issues, it stands to reason that, when PNES co-occurs with a mental health diagnosis, social variables have an impact on diagnosis and treatment. Omitting demographic data in analyses with other variables is a lost opportunity to gain a clearer picture of how social variables intersect with PNES. Future studies need to not only gather social data consistently but to analyze the data in ways that lead to meaningful conclusions.

Hearld, Kristine, PhD

Tuesday – Arlington

UAB School of Health Professions, Health Services Administration

Panic Attacks in Minority Americans: The Effects of Alcohol Abuse, Tobacco Smoking, and Discrimination

Kristine R. Hearld, PhD; Henna Budhwani, PhD, MPH; Daniel Chavez-Yenter, MPH

Purpose: This research examines factors associated with panic attacks in minority groups residing in the U.S. Lifetime prevalence of panic attacks, defined as ‘unexplained fearful spells, with accompanying psychophysiological symptoms that are limited to a few minutes duration’ is estimated at 22.7% nationally. Since 2000 there has been a rapid growth of minorities in the U.S., and currently they comprise more than one third of the overall population. Racial and ethnic minorities are projected to become the new majority in 2050, and mental health research in these groups yield mixed results. Thus, the purpose of this study is to evaluate the relationship between panic attacks, minority status, and nativity by focusing on the effects of health lifestyle behaviors (excessive alcohol consumption and tobacco smoking) and discrimination on African Americans, Afro-Caribbeans, Hispanics, and Asians.

Methods: We used logistic regression models to assess correlates of depression comparing Asian, Hispanic, Afro-Caribbean, and Black immigrants to their American born counterparts as well as to American born Whites. Data were derived from the Collaborative Psychiatric Epidemiology Surveys (n=20,013), a repository emphasizing race/ethnicity and mental health.

Results: Support was found for the hypothesis that immigrants have lower odds of panic attacks as compared their non-immigrant counterparts. Demographic and socioeconomic variables had significant associations; females had over 2.4 times higher odds than males of meeting the criteria for panic attacks. The more frequently respondents were treated as dishonest, less smart, with disrespect, threatened, or called names, the more likely they met the criteria for panic attacks. Additionally, smoking and alcohol abuse were significant predictors of panic attacks. Those who abused alcohol have over 2 times the odds of having panic attacks. Similarly, smokers had 52% higher odds of panic attacks than non-smokers.

Conclusion: Key findings were that health lifestyle choices and exposure to discrimination significantly affected the chance of having panic attacks. Nativity was protective; however, its effect was ameliorated by exposure to discrimination or engagement in smoking behavior or alcohol abuse. Thus, this study offers insight into contextual factors for clinicians caring for racial and ethnic minorities diagnosed with panic attacks, policy makers, and researchers alike.

Henry, Samantha, BS

Poster 15

UAB College of Arts and Sciences, Psychology

Exploring Racial Differences in Cognitive Function Among Older Adults with Diabetes

Samantha K. Henry, BS; Olivio J. Clay, PhD; Michael Crowe, PhD

Purpose: Racial disparities in cognitive functioning are not well understood. Older African Americans typically perform worse on measures of cognitive functioning and have higher prevalence of diabetes as well as worse diabetes-related outcomes. We examined the relationship between race and cognitive function and possible explanatory variables in older adults with diabetes.

Methods: Participants were 247 adults age 65+ with diabetes who completed telephone-based measures. Cognitive function was assessed using the modified Telephone Interview of Cognitive Status (TICS-M). Demographics included race, age, gender, and years of education. A sum of diabetes-related complications ranged from 0-6 and included insulin use, amputation, foot ulcers, neuropathy, kidney disease, and retinopathy. Self-reported reading ability was used as an index of quality of education. We used hierarchical regression modeling to determine whether race was associated with cognitive function and what variables explained this association.

Results: The sample was 45% African American and 48% male. Average age was 73 years. In the first regression model, we examined race as a predictor of cognitive function while controlling for age and gender. African American race was significantly associated with lower cognitive performance ($\beta = -0.36, p < .001$). After adding education to the model, the association with race was reduced slightly but remained statistically significant ($\beta = -0.31, p < .001$). Adjusting for years with diabetes and diabetes complications did not change the association between race and cognitive function. In the final model, reading ability explained 18% of the relationship but race remained significantly associated with cognitive performance ($\beta = -0.25, p < .001$).

Conclusion: In this sample, African American race was associated with poorer cognitive performance. This association was explained in part by education level and reading ability, but not explained by years with diabetes or diabetes complications. Self-rated literacy was a better contributor to the model than education level. Further research is needed to understand the interrelationship of race, diabetes, and cognitive function.

Hopkins, Jammie, DrPH, MS

Tuesday – University

Transdisciplinary Collaborative Center (TCC) for Health Disparities Research

Harnessing the Power of Transdisciplinary Collaboration to Inform Health Policy and Advance Health Equity in the South

Jammie Hopkins, DrPH, MS; Ulochi Nwagwu, MPH; Elizabeth Ofili, MD, MPH, FACC; David Satcher, MD, PhD

Purpose: Achieving health equity through policy change and the elimination of health disparities is a complex process and necessitates the strategic cooperation of stakeholders from multiple sectors. The “transdisciplinary collaborative” approach involves the strategic engagement of stakeholders from diverse disciplines (policy, research, clinical practice, community-based advocacy), supported by a unifying agenda and shared resources, to: 1) examine the impact of health policies on vulnerable populations; 2) evaluate innovative strategies to reduce health disparities; and 3) disseminate evidence-based findings in an effort to inform the direction of future policy. To date there is a paucity of literature assessing the health and policy impacts of population-level collaborative efforts.

Funded by NIMHD in 2012, the Morehouse School of Medicine Transdisciplinary Collaborative Center for Health Disparities Research (TCC) is poised to harness the power of collaboration to carry out innovative health policy research with a goal of significantly impacting health disparities in the Southeastern United States. This presentation will describe the TCC strategic approach, present key findings to date, and share valuable lessons learned.

Methods: TCC currently supports collaborative research subprojects in four primary health policy areas: childhood psychosocial development, integrated primary care, health information technology, and health policy leadership. All research subprojects receive guidance and technical support from four infrastructure cores. The TCC Pilot Project Program engages approximately 10 community and academic partners in health policy research and capacity building efforts annually. Outcomes are evaluated at two levels; among each project, and the collective policy impact of the TCC on HHS Region IV (Southeast US).

Results: TCC has successfully engaged over 70 collaborative partners in the four subprojects and initiated eight (8) pilot projects. All subprojects have completed their formative research, generated meaningful data, and have advanced to the implementation stage of their research. Research outcomes and health policy impacts to date will be shared during the presentation. Lessons learned include navigating complex bureaucracies; language and operational definitions; balancing time and workflow expectations; and maximizing communication, accountability, and transparency among all partners.

Discussion/Conclusions: Insights and lessons learned from the TCC may help elucidate the complexities of transdisciplinary policy work and inform other stakeholders committed to advancing health equity.

Howard, George, DrPH

Wednesday – University

UAB School of Public Health, Biostatistics

Where Should Interventions Be Focused to Reduce the Black–White Disparity In Stroke Mortality? Insights from The REasons for Geographic And Racial Differences in Stroke (REGARDS) Study

George Howard, DrPH; Claudia S. Moy, PhD; Virginia J. Howard, PhD; Leslie A. McClure, PhD; Dawn O. Kleindorfer, MD; Fredrick W. Unverzagt, PhD; Elsayed Z. Soliman, MD; Monika M. Safford, MD; Mary Cushman, MD; Virginia G. Wadley, PhD

Introduction: The study of racial disparities in stroke mortality should guide interventions to reduce these disparities. A higher mortality in blacks than whites could result from a higher incidence of stroke in blacks, a higher case-fatality of stroke in blacks, or both. Interventions focusing on primary prevention are needed if incidence is a major contributor to disparities, while interventions addressing treatment are a priority if case-fatality is a major contributor.

Methods: 29,681 black and- white participants aged 45+ were followed for stroke over 7 years. Fatal stroke (stroke mortality) was defined as a stroke event with death within 30-days, incident stroke included all stroke events (regardless of death), and case-fatality as the proportion of stroke events with death within 30-days. Black-white differences in stroke mortality and stroke incidence were assessed using proportional hazards models, and case-fatality using logistic regression (with adjustment for age and sex).

Results: There were 954 incident events with 242 deaths within 30-days. We showed higher stroke mortality in blacks, with a black-white disparity in fatal stroke at young ages (at age 45, HR = 4.35; 95% CI: 1.94-9.76), but a declining magnitude of the disparity at older ages (at age 85, HR = 0.87; 95% CI: 0.56 - 1.35). The pattern was similar for incident stroke, although the magnitude of the black-white disparity was smaller (at age 45: HR = 2.40; 95% CI: 1.72 - 3.33; at age 85: HR = 0.95; 95% CI: 0.76 - 1.19). There was no evidence of a black-white disparity in case-fatality rate (OR = 1.26; 95% CI: 0.93 - 1.71).

Conclusion: In a nationwide cohort, we found that the black-white disparity in stroke mortality was primarily attributable to a racial disparity in stroke incidence, not case fatality. Thus, interventions designed to reduce the black-white disparity in stroke mortality require a primary prevention focus aimed at reducing the disparity in stroke incidence. While effective interventions to improve stroke outcomes are needed, these data suggest that improving treatment after the initial event will not reduce black-white disparities in stroke mortality.

Howard, Virginia, PhD

Wednesday – University

UAB School of Public Health, Epidemiology

Apparent Treatment-resistant Hypertension among Individuals with History of Stroke or Transient Ischemic Attack

Virginia J. Howard, PhD; Rikki M. Tanner, PhD; Aaron Anderson, MD; Marguerite R. Irvin, PhD; David A. Calhoun, MD; Daniel T. Lackland, DrPH; Suzanne Oparil, MD; Paul Muntner, PhD

Purpose: Control of blood pressure has been recognized as a paramount goal in secondary stroke prevention; however, the high prevalence of uncontrolled blood pressure (BP) and use of multiple antihypertensive medication classes in stroke patients suggest this goal is not being met. We sought to determine the prevalence and factors associated with apparent treatment-resistant hypertension (aTRH) in persons with a history of stroke or transient ischemic attack (TIA).

Method: These cross-sectional data came from REGARDs, a national, population-based cohort of 30,239 black and white adults > 45 years, enrolled in 2003-2007. The primary analysis was restricted to 11,719 participants with treated hypertension. aTRH was defined as: 1) uncontrolled BP (systolic BP = 140 mmHg or diastolic BP = 90 mmHg) with = 3 antihypertensive medication classes, or 2) use of = 4 antihypertensive medication classes, regardless of BP level. Poisson regression was used to calculate characteristics associated with aTRH.

Results: Among hypertensive participants, the prevalence of aTRH was 24.9% (422/1,694) and 17.0% (1,708/10,025) in individuals with and without a history of stroke/TIA, respectively. After adjustment for cardiovascular risk factors, the multivariable adjusted prevalence ratios for aTRH for those with versus without stroke/TIA was 1.14 (95% CI: 1.03-1.27). Among hypertensive participants with stroke/TIA, male sex, black race, larger waist circumference, longer duration of hypertension, and reduced kidney function were associated with aTRH after multivariable adjustment.

Conclusions: The high prevalence of aTRH among persons with stroke/TIA supports the need for more individualized, intensive blood pressure monitoring and management.

Jackson, Bradford, PhD

Tuesday – Arlington

UAB School of Medicine, Preventive Medicine

Unintentional Injuries and Violence-related Behavior among Adolescent Males: Racial and Geographic Region Differences

Bradford E. Jackson, PhD; Karan P. Singh, PhD; James M. Shikany, DrPH; Mona Fouad, MD, MPH; Selwyn M. Vickers, MD; Sejong Bae, PhD

Purpose: A study on the years of potential life lost from unintentional injuries among adolescents found that the burden is higher among males, 15-19 years of age, blacks, and in a geographic clustering of the Mid-South. Monitoring violence related behaviors among adolescents is critical since it has implications on long term health. The goal of this study is to identify the unintentional injury and violence related issues that disproportionately affect adolescent black males in the Mid-South region.

Methods: Data were obtained from the 2011 Youth Risk Behavioral Surveillance System; a national survey of high school students on health risk behaviors. Mid-South states included Alabama, Mississippi, Louisiana, Arkansas, Tennessee, and Kentucky. Unintentional injury and violence variables of interest for this study included (1) vehicular safety, and (2) weapon-specific violence. The data are presented as frequency and weighted percentages. Comparisons were made using the Rao-Scott chi-square test for clustered binary data to examine racial differences within the Mid-South, as well as regional across Mid-South states.

Results: Within the Mid-South, black males reported engaging in unintentional injury and violence related events more often than white males, notably fighting at school (20.2% vs 12.6%; $p < 0.0001$). However they were less likely to be bullied at school in the past 12 months compared to whites (11.8% vs 15.9%; $p = 0.024$) and carrying a weapon more than once to school in the past 30 days (5.3% vs 10.8%; $p < 0.0001$). Compared to their non-Mid-South counterparts, Mid-South black males engaged in unintentional injury and violence related events notably for riding with an intoxicated driver (Mid-South: 27.2% vs. non-Mid-South: 21.0%; $p = 0.0081$), carrying a weapon (20.8% vs 17.7%; $p = 0.019$), and fighting at school (20.2% vs 15.0%, $p = 0.0031$).

Discussion: The data suggest that black males in the Mid-South region have higher self-reports of activities associated with unintentional injury and violence than whites, and non-Mid-South males. These findings may help guide interventions to address issues of unintentional injury and violence in among adolescent black males in a region of the US which has high associated mortality rates.

Effects of Volunteer Peer Support in Diabetes with Depressive Symptoms

Yulia Khodneva, PhD; Monika Safford, MD; Joshua Richman; Christopher Gamboa, MPH; Andrea Cherrington, MD

Background: Depression in diabetes (DM) is common and associated with poor health outcomes. Peer support DM interventions include encouraging interactions that could improve depressive symptoms. We examined intervention effects for those with and without depressive symptoms in a peer support trial.

Methods: The 1-year ENCOURAGE trial included 424 persons with DM living in rural Alabama. Intervention participants worked with community volunteers who encouraged participants to engage in daily self-management; control arm participants received usual care. Outcomes included A1c, body mass index (BMI) and quality of life (QoL, with EuroQoL-5D, range 0.0-1.0). Depressive symptoms were assessed with the Patient Health Questionnaire (PHQ-8, range 0-24). Generalized Additive Models (GAM) examined control-intervention differences in changes in A1c, BMI, and QoL for those with PHQ-8 =5 and PHQ-8 <5.

Results: The 355 included participants with follow-up data were aged 60.2 ±12.1 years, 87% African American, 75% female, and 39% insulin-treated. At baseline, 52% of intervention (n=168) and 48% of control (n=187) participants had PHQ-8>5 (p=0.37). Compared to intervention participants with PHQ-8 <5, those with PHQ-8 >5 had higher DM distress (2.6 ±1.4 vs 1.6 ±0.8, p<0.01) and lower QoL (0.6 ±0.2 vs 0.8 ±0.1, p<0.01), respectively. Compared to control participants with PHQ-8 <5, those with PHQ-8 >5 had higher DM distress (2.7 ±1.2 vs 1.6 ±0.8, p<0.01), QoL (0.7 ±0.2 vs 0.8 ±0.1, p<0.01), and insulin use (48% vs. 30%, p=0.01), respectively. In an overall GAM adjusting for imbalance across trial arms and time-related covariates, intervention participants experienced a maximum 0.85 greater reduction in PHQ-8 score than control participants (p=0.01). In stratified analyses, those with PHQ-8 >5 had unchanged A1c, lost weight (maximal change in BMI -4.6 kg/m², p=0.03) and improved QoL (maximal change 0.35, p=0.04). Those with PHQ-8 <5 also had unchanged A1c and lost weight (maximal change in BMI -2.5 kg/m², p=0.05), but did not improve QoL (maximal change 0.08, p=0.06).

Conclusion: Peer support improved depressive symptoms for all, but greater weight loss and gains in QoL for those with baseline depressive symptoms compared to those without. Peer support holds promise for the treatment of comorbid DM and depression.

Racial Differences in the Symptom Profiles of Children Assessed for Autism Spectrum Disorder

Kimberlee Krubinski; Kristi C. Guest, PhD; Caroline Leonczyk, MA; Olivio Clay, PhD; Sarah O'Kelley, PhD

Purpose: Autism Spectrum Disorder (ASD) impacts 1 in 68 people in the United States (CDC, 2014). Symptoms of autism impact areas of social interaction, communication, and behavior. Using a variety of screening tools, past research inconsistently identifies differences between African Americans and Caucasians within the symptom categories (behavioral, language and communication, and social interaction) of autism spectrum disorders. This study looks to identify differences between African American and Caucasian children's symptoms presented during the Autism Diagnostic Observation Schedule (ADOS).

Methods: Participants are referred to the UAB Civitan-Sparks Clinics for assessment due to the question of a developmental disability; children with the question of an Autism Spectrum Disorder received a comprehensive evaluation using the ADOS and Autism Diagnostic Interview-Revised (ADI-R) by a licensed clinician and graduate trainee. ADOS scores were analyzed using Cronbach's alpha to identify similar items. Clinician report and/or medical records identified the child's race. Independent sample t-tests were run to identify racial differences in combined social interaction scores for all three modules and individual scores in the behavioral and language/communication areas. A linear regression model was run to identify potential confounds on symptom profiles.

Results: In a sample of 365 participants (mean age= 4 years 11 months, 58% Caucasian and 21.9% African American, 82% male), ADOS scores were analyzed for reliability within social interaction, language and communication, and behavior sections in each module. Cronbach's alpha for standardized items was greater than .800 for social interaction in module one (.913), two (.899), and three (.875), as well as for module one language and communication (.874). Independent sample t-tests indicated African Americans in module 1 had higher deficits than Caucasians in social interactions (-2.376, p=0.019), as well as tantrums and aggressive behaviors (t= -2.043, p=.043) and directed vocalization (t= -2.398, p= .018). In module 3, African Americans has increased deficits in offering information (t=-3/258, p=.002).

Discussion/Conclusion: African American and Caucasian children evaluated for the question of Autism Spectrum Disorder were shown to have differences in the symptoms presented during the Autism Diagnostic Observation Schedule. Primary differences occur in visually recognizable symptoms, potentially contributing to a referral disparity for evaluation of ASD.

Languigne, Alana, BS

Poster 18

UAB School of Health Professions, Nutrition Science

Associations of Food Insecurity with Gestational Weight Gain, Postpartum Weight Change, and Diet in Normal Weight and Obese African American Women

Alana Languigne, BS; Camille Schneider; Paula Chandler-Laney, PhD

Background: Food insecurity is associated with obesity. During pregnancy, food insecure women have been found to gain more weight than food secure women. The purpose of this study was to explore potential interactions among early pregnancy weight status and food security on gestational and postpartum weight change, and diet, in African American women. We hypothesized that food insecure women who were obese prior to pregnancy would have greater gestational and postpartum weight gain than would normal weight women.

Methods: Secondary analyses were conducted on data obtained from normal weight (BMI 18.5 – 24.9 kg/m²) and obese (BMI 30.0 – 40.0 kg/m²) African American women, aged 16 to 35. Participants were recruited between 8 and 17 weeks' gestation and followed until three months postpartum. The USDA Adult Food Security Survey was administered and results used to dichotomize participants into those with complete food security versus those with some degree of food insecurity. Energy intake and diet quality was assessed by food diary. Participant weight was measured at each visit and used to calculate gestational and postpartum weight change. Two-way ANOVA were used to examine whether food security and/or weight status were associated with gestational and postpartum weight change, and dietary outcomes.

Results: Survey data were available from 42 women and 20 of them reported at least some food insecurity. All participants gained weight during pregnancy, but weight gain did not differ by food security or weight status. Similarly, food security and weight status were not associated with postpartum weight change. Women who were obese prior to pregnancy tended to consume more total calories than normal weight women; however energy consumption did not differ by food security status. Although dietary macronutrient distribution did not differ by group, food insecure women consumed a higher glycemic index diet than did food secure women ($P < 0.01$).

Conclusion: Although limited by the small sample size, results of this study suggest that food insecurity may contribute to a poorer quality diet during pregnancy. More research is needed in larger cohorts to fully examine the implications of food insecurity on diet and metabolic health during and after pregnancy.

Lawrence, Wayne, BS

Poster 19

Georgia Southern University, School of Arts and Humanities

Association between Health Literacy and Perceived Confidence for Communicating with Physicians among African American Men

Wayne Lawrence, BS; Brandon Wilcher; Heather Guerreso; Jarrett Johnson, MS; Levi Ross, PhD

Purpose: Patient involvement during medical consultations helps improve patient readiness for informed decision making. Research suggests that factors such as health literacy affect patient's confidence to interact with physicians. The purpose of this pilot project was to investigate the relationship between health literacy status and perceived confidence to discuss prostate cancer issues with physicians among a sample of African American men.

Methods: Forty-nine men ages 35 and above were recruited to participate using a purposive sampling scheme. All participants completed a 30-45 minute interviewer-administered survey that allowed for the collection of: (1) demographic information, (2) information about health literacy, and (3) information regarding perceived confidence in interacting with physicians. Perceived confidence was assessed using the short version of the Perceived Efficacy in Patient-Physician Interactions (PEPPI-5) scale ($\alpha = .81$). Health literacy status was measured using the Test of Functional Health Literacy in Adults (TOFHLA), which allowed men to be classified into a Low Functional Health Literacy (LFHL), Marginal Functional Health Literacy (MFHL) or Adequate Functional Health Literacy (AFHL) group.

Results: Participants were between the ages of 37 and 91 years of age ($\mu = 59.34$ years). Most were married (74%), had private insurance (58%) and had a high-school diploma or greater (79.6%). According to TOFHLA scores, 20.4% of the sample was classified as having LFHL, 18.4% had MFHL and 61.2% had AFHL. Results from Analysis of Variance (ANOVA) indicated there were no statistically significant differences in mean levels of perceived confidence by health literacy status ($F_{2,46} = 1.393$; $p = .259$). However, when examining health literacy status by individual situations listed in the PEPPI-5, results indicated there were two specific situations in which having LFHL affected men's confidence in their ability to communicate with physicians.

Conclusion: Results from this pilot project suggest that interventions are needed for African American men with low health literacy to help them gain confidence in their ability to get a doctor to answer all of their questions and their ability to get a doctor to do something about their chief health concern.

Lewis, Marquita, MPH, MS

Poster 20

UAB School of Medicine, Preventive Medicine

Income, Education, and Coronary Heart Disease Outcomes in the REasons for Geographic And Racial Differences in Stroke (REGARDS) Study

Marquita W. Lewis, MPH, MS; Yulia Khondneva, PhD; Monika Safford, MD

Purpose: Low income and low education are both associated with socioeconomic disparities in coronary heart disease (CHD) risk. Since few studies have examined the combined effects of income and education, we investigated the association between the combination of low income and low education and CHD outcomes in a large national cohort.

Methods: The Reasons for Geographic And Racial Differences in Stroke (REGARDS) prospective cohort study recruited 30,239 adults age ≥ 45 years of age between 2003-7. CHD outcomes were expert adjudicated from medical records. Low income was defined as annual household income $< \$35,000$ and low education was defined as less than a high school education. Income and education were combined into four mutually exclusive exposure groups. Cox models estimated hazard ratios (HR) for incident CHD, adjusting for demographics, medical history, health behaviors and physiologic parameters, and examined relationships by age group.

Results: We analyzed 24,461 participants who experienced 809 incident CHD events through December 31, 2011. There was 135 individuals reporting both low income and low education, 339 with either, and 335 had neither; those with both low income and low education had the highest incidence of acute CHD (10.11 [95% CI 8.4-12.1] per 1000 person-years). Those with low income and low education had the highest fully adjusted risk of incident CHD (HR 1.42 [95% CI: 1.14-1.76]). Low income and low education was associated with higher risk among those aged < 65 years (adjusted HR 2.07, [95% CI 1.42-3.01]) compared with those aged ≥ 65 years (HR 1.16 [95% CI 0.90-1.50]).

Conclusion: The combination of low Income and low education was associated with higher risk of incident CHD than either alone, and these effects were most pronounced for younger ages, but not higher ages.

McFarland, James

Poster 21

UAB School of Medicine

A Novel Primary Care Program for Homeless Veterans: Descriptive Analysis of the Homeless Patient-aligned Care Team (HPACT) in Birmingham

James A. McFarland; Stefan G. Kertesz, MD

Purpose: In 2012, the Department of Veterans Affairs (VA) opened Homeless Persons Aligned Care Teams (HPACTs) for primary care of homeless Veterans. We sought to characterize patients served by Birmingham's HPACT, profiling health and service utilization before and after HPACT engagement. This chart review effort continues a quality improvement project among 3 HPACTs (Birmingham, Pittsburgh, Los Angeles).

Methods: This review examined patients entering the Birmingham HPACT 01/17/13-08/13/13 (n=69). It covers these pre-admission variables: chronic medical diagnoses, health service utilization, and housing. For the 6-month period after HPACT entry, health service utilization was assessed. Methods were coordinated with collaborating sites, resulting in a standard operating procedure for future collaborators.

Results: Of 69 persons entering Birmingham's HPACT, 19% were sleeping in hotels, vehicles, emergency shelters, or on the streets, 25% were living with family/friends, 48% were in transitional programs, and 9% were permanently housed. The most common chronic conditions at baseline were: hypertension (44%), chronic pain (37%), and hyperlipidemia (15%), with 63% having at least one condition. The most common mental conditions were: depression/bipolar (55%), anxiety (19%), and post-traumatic stress disorder (14%), with 59% having at least one mental condition. An alcohol/drug issue was found among 48%/35%, respectively.

Among HPACT entrants for whom there was a record prior to entry (n=64), 81% had obtained non-HPACT primary care, 34% had used the ED and 9.4% had inpatient hospitalizations in the preceding 6 months. During follow-up over 6 months, health service utilization by this population was as follows: HPACT, 97%; ED, 35%; and inpatient, 14%.

Conclusions: Patients received by this HPACT had extremely high morbidity. The high percentage with prior primary care suggests heavy reliance on intra-facility referral rather than outreach to "de novo" patients. A reduction in ED/hospital utilization was not observed in the first 6 months after joining the HPACT. HPACTs appear capable of accruing and serving a vulnerable population. Attaining reductions in acute hospital service utilization may require additional time in care or adjustments to processes of care.

Moellering, Douglas, PhD

Wednesday – Centennial I

UAB School of Health Professions, Nutrition Sciences

Preliminary Findings: Adverse Effects of Life Stress on Obesity

Douglas R. Moellering, PhD; Irena Stepanikova, PhD; William Cockerham, PhD; Kelley Johnston; Britney F. Blackstock; Bryant W. Hamby, MA; Zackary R. Simoni, MA; Barbara Gower, PhD; Andrea L. Cherrington, MD

Objective: Obesity and chronic metabolic disease (e.g., Type 2 Diabetes Mellitus (T2DM) and cardiovascular disease) are two distinct yet related products of the interactive effects of life stress, behavior, and diet quality at a macro- and micro-nutritional level. Chronic life stress such as economic stress, depression, discrimination, and/or a lack of social support are suggested to elevate cortisol, pro-inflammatory factors, and oxidative stress. The mechanism we posit includes that stressed individuals with elevated cortisol levels, have increased cravings and intake of processed carbohydrates (CHO), which increase a highly lipogenic, antilipolytic hormone, insulin, setting the stage for decreased fat utilization and increased storage. The inability to “burn” fat leads to the perception of energy deficiency, and is manifest as lethargy and hunger. High stressed and CHO consuming individuals exist in a vicious cycle of repeated bouts of CHO-induced hunger and CHO craving, leading to obesity and contributing to health disparities in African American women (AA). We hypothesize that psychosocial ‘life’ stress can affect dietary choices (increased CHO) and these stressors are mediated through a feed forward loop between stress hormones and oxidative stress.

Methods: AA and Caucasian American (CA) women between the ages of 21-45, with a body mass index (BMI) between 19-45 kg/m², exercising < 2 hours/week were recruited through the UAB reporter, flyers, and word of mouth. We examined social support, perceived stress, self-esteem, stressful life events, spirituality, depression, neighborhood cohesion, discrimination, and aggression using valid diagnostic questionnaires in relation to body composition, and markers of oxidative stress in a sample of 7 AA and 6 CA women.

Results: There were no racial differences in mean age (AA=30±9.6, CA=32±7) or reported income (AA=\$41,000±\$24,000, CA=\$40,800±\$24,600). Individuals with higher levels of perceived stress and more recent life events tend to have higher levels of oxidative stress. AA women report increased levels of perceived stress compared to CA women (12.0 vs. 22.7, range 5-30) and have higher body mass indices (BMIs; 33.8 vs 24.0, range 19-42).

Conclusion: These very preliminary findings allude to increased levels of perceived stress and more recent life events being associated with greater oxidative stress and higher BMIs.

Mohler, Maura, MPH

Wednesday – Centennial I

Louisiana State University School of Public Health

Relationships between Obesity, Metabolic Health, and Neighborhood-concentrated Disadvantage in Pre-pubertal Children

Richard Scribner, MD, MPH; Maura Mohler, MPH; Cruz Velasco-Gonzalez, PhD; Jovanny Zabaleta, PhD; Claudia Leonardi, PhD; Li, Chi, MA, MS; Nicole Pelligrino, MPH; Bobby Uddo, MPH; Lauren Griffiths; John Estrada, MD; Melinda Sothorn, PhD

Purpose: Relationships between obesity, metabolic health and neighborhood concentrated disadvantage (CDI) in obese and non-obese African American versus Caucasian pre-pubertal children have not been examined.

Methods: We obtained cross-sectional data from a cohort of healthy, pre-pubertal (Tanner Stage<2) children (N=96; Age: 8.06 [SD 0.78]; M= 51 [53%]; F= 45 [47%]; African American= 26 [27%]; Caucasian= 70 [73%]; Obese= 21 [22%]; Non-obese= 75 [78%]) from the MET study. Body mass index z-score (z-BMI), total body fat (DXA), visceral adipose tissue (VAT [magnetic resonance imaging]), intrahepatic (IHL) and intramyocellular lipid (IMCL [proton magnetic resonance spectroscopy]) and insulin resistance (HOMA-IR) were measured. CDI was characterized using each child’s census tract of residence. Spearman’s rank correlations were used to examine relationships, accounting for sex and race.

Results: Only z-BMI (-0.234, p=0.023), body fat (-.228, p=0.028, n=95) and VAT (-.241, p=0.042, n=74) were negatively associated with CDI. These negative relationships remained significant in Caucasian children only. The variables within CDI that had the strongest effect on z-BMI, body fat, and VAT were: 1) female head of households, 2)unemployed parents, and 3)parents<18 years.

Discussion/Conclusion: In contrast to previous results in adolescents and adults, CDI is negatively associated with obesity, but not metabolic health in pre-pubertal children. This may be due to an underdeveloped HPA axis, early stage of stress response that has not been allostatically reset, or antagonistic pleiotropy.

Nolan, Timiya, MSN, CRNP

Poster 22

UAB School of Nursing, Center for Nursing Research

Cognitive Function Reported among African American Breast Cancer Survivors in Alabama

Timiya S. Nolan, MSN, CRNP; Silvia Gisiger-Camata, MPH, RN; Jennifer Bail, BSN, RN; Karen Meneses, PhD, RN, FAAN

Purpose: Cognitive impairment (CI) can occur after breast cancer treatment, causing significant disturbance of breast cancer survivors' (BCS) daily lives. Data indicate 21-90% of BCS report CI. Most common CI's were memory loss and lack of attention. However, data are derived from predominately Caucasian BCS with a corresponding lack of information about African American (AA) BCS. AA BCS are considered an underserved and under-studied population. The purpose of this paper is to describe: (1) CI among AA BCS and (2) utilization of resources.

Methods: Three educational programs consisting of breast health, healthy living, and brain exercises were delivered in three AA churches in Birmingham. At the conclusion, participants were asked to complete the Think Well Survey. The Survey consisted of 28 items of which four 5-point Likert scale (1=not at all to 5=extremely) items referenced the experience of CI (memory, ability to think, speed of problem solving, and ability to pay attention), treatment's attribution to CI, and CI's interference with daily life; one multiple choice item referenced utilization of resources. SPSS descriptive statistics were used.

Results: Of the 145 returned the surveys, 47 (34.8%) were from BCS. BCS returned 100% of surveys; 90.9% were AA with mean age of 58.4 years (SD= 11.5 years) and 8.28 mean years of survivorship (SD=8.0 years). Nearly 50% were diagnosed before menopause. Of the sample, 72.3% received chemotherapy and 14.7% received chemotherapy and hormone therapy. Greater than 90% reported post-treatment CI in memory, ability to think, speed of problem solving, or ability to pay attention. BCS moderately attribute CI to treatment (memory= 3.5, SD= 1.0; ability to think= 3.7, SD= 0.9; speed of problem solving= 3.8, SD= 1.0; ability to pay attention= 3.8, SD= 1.0). When asked how CI interfered with daily activities, 45.3% reported moderate to very much interference with activities (2.4, SD= 1.3) Despite cognitive changes, 35% did not use resources to mitigate CI.

Discussion/Conclusions: CI including losses in memory, attention, concentration, and problem solving ability occur among AA BCS and moderately interfere with activities of daily living. Further study to identify relevant cognitive interventions for AA BCS is needed.

Padilla, Luz A., MD

Poster 23

UAB School of Public Health, Epidemiology

Summer Student Research Studies of Cancer Disparities and Cancer Prevention in Minority Groups

Luz A. Padilla, MD; Renee Desmond, DVM, PhD; C. Michael Brooks, EdD; John W. Waterbor, MD, DrPH

Purpose: To describe the nature of cancer disparities research and minority cancer prevention research conducted by medical students and graduate students supported by the NCI R25E program at the University of Alabama at Birmingham (UAB) Medical Center.

Methods: Cancer disparities is an active area of research among faculty, medical students, and graduate students at the UAB Medical Center. In summers 1999-2014 UAB's Cancer Research Experiences for Students (CaRES) R25E program funded by the National Cancer Institute supported over 500 students to undertake short (8-12 week) cancer research projects directed by members of the UAB Comprehensive Cancer Center faculty. The projects proposed reflect active areas of faculty research and include basic science experiments, clinical studies, community-based investigations, and analyses of secondary data. Interested students self-match to available projects based on their previous background, abilities, and interests. Studies of minority health and health disparities are given priority for funding.

Results: Of the 238 cancer-related, peer-reviewed articles published by alumni of the CaRES program, 17 articles address cancer in minority groups or racial disparities in cancer prevention and control activities (such as lifestyle changes and screening). African Americans, Latinas, Alaskans, and Mexican immigrants were studied in 15 of these articles, while two articles pertain to all racial groups. Thirteen articles are about one or more specific cancers (colon, cervix, prostate, breast, or lung), while the remaining four articles address the relationship of diet, weight, and physical activity to cancer prevention. Twelve of the 17 articles describe studies of education and prevention, two articles address differential outcomes of black versus white cancer survivors, and three articles describe methods for conducting cancer disparities research.

Conclusions: The common themes of these publications are the importance of cultural context when educating people about cancer prevention; and the need to carefully select approaches that will maximize the collection of accurate data in studies of cancer prevention and control in minority populations. Specific recommendations will be made based on the collective review of these studies, with commentary about ways in which this knowledge can be applied to minority populations.

Early Exposure to Specific Microbes Dampens the Development of HDM Allergy during Adult Life

Preeyam Patel, PhD; John F. Kearney, PhD

Purpose: Currently, an estimated 20% of the population worldwide suffers from an allergic disorder. Without repeat microbial incidence to stimulate an inflammatory response during early life, it is hypothesized that the immune system defaults to an allergic response. African American and Hispanic patients are three to four times to be hospitalized or succumb to death due to asthma and asthma attacks. This health disparity cannot be solely explained by environmental, economic, or genetic factors, and is most likely a striking combination. Allergens and microbes share similarly recognized molecular epitopes. HDM expresses phosphorylcholine (PC) epitopes similar to those borne by *Streptococcus pneumoniae* (pneumococcus). My hypothesis is that early exposure to PC-bearing pneumococcus modulates the development of HDM-induced airway disease during adult life.

Methods: In order to test our hypothesis, 3-day old mouse pups were immunized with PC-bearing or PC-devoid pneumococcus and challenged with HDM allergen as adults. Following allergic challenge, cells from the lung, draining lymph node, and spleen were collected to identify and enumerate allergy-associated cell and analyze the specificity of B cells.

Results: A single immunization with PC-bearing pneumococcus during early life generates a large clone of PC-specific B cells with the ability to migrate to the lung and secrete antibody locally into the pulmonary space. The effect of this is drastic, such that the priming of T cells driving allergic inflammation is severely impaired. As a result, mice immunized with PC-bearing pneumococcus, compared to mice immunized with PC-devoid pneumococcus, have decreased numbers of allergic mediators infiltrating the pulmonary compartment and development of airway hyperreactivity.

Discussion: B cells responding to neonatal PC-bearing pneumococcal infection can also respond to HDM allergen during adult life. This response is restricted to i) the expression of PC on HDM particles ii) the expression of PC on pneumococcus and iii) the age at which pneumococcal exposure occurs.

Conclusion: Early stimulation with PC-bearing pneumococcus generates a clone of B cells that are capable of dampening the development of HDM-induced allergic disease. We highly recommend a PC-bearing pneumococcal vaccine for use in at-risk children to severely decrease the risk for HDM-induced respiratory allergy and asthma.

Testing the Feasibility and Acceptability of an Interactive, Internet-based Physical Activity Intervention for Latinas in Alabama

Dorothy Pekmezi, PhD; Cole Ainsworth, MPH; Tanya Benitez, PhD; Andrea Cherrington, MD; Rodney P. Joseph, PhD; Colleen Keller, PhD; Becky Marquez, PhD, MPH; Bess H. Marcus, PhD

Purpose: Latinas in the U.S. report disproportionately high levels of physical inactivity and related health conditions (e.g., diabetes, stroke); thus, innovative strategies are necessary for reducing these disparities. Internet-based interventions can help to overcome common barriers of in-person interventions and may be particularly well-suited for physical activity promotion among Latinas living in a state with a history of some of the harshest immigration laws in the country.

Methods: In Muévete Alabama, a one-month single-arm pre-posttest design was utilized to assess the feasibility and acceptability of a theory driven (Social Cognitive Theory and Transtheoretical Model), culturally and linguistically adapted, Internet-based physical activity intervention for Spanish-speaking Latinas. Changes in physical activity (as measured by Seven Day Physical Activity Recall interviews) and related psychosocial variables were measured at baseline and one month assessments.

Results: The sample was comprised of 24 Latinas (mean age= 35.17, SD= 11.22). Most (83.3%) were born outside of the continental United States. Countries of origin included Mexico (n= 15, 62.5%), Colombia, Guatemala, Puerto Rico, Venezuela, Peru, and Argentina. A majority of participants had a high school education or less (n=13, 54.2%) and an annual household income under \$30,000 (n=12, 57.1%). Intent-to-treat analyses indicated that there was a significant increase (p= .001) in self-reported moderate-to-vigorous intensity PA from median of 12.5 minutes per week at baseline to 67.5 minutes per week at the one-month assessment. Participants also reported significant increases in self-efficacy as well as cognitive and behavioral processes of change. Nearly half (45.8%) of participants reported advancing at least one stage of change during the course of the one-month intervention. Findings on the consumer satisfaction measure were favorable: 100% (n=21) of participants who completed the one-month intervention felt motivated to start or continue exercising as a result of using the website, and would recommend the website to family or friends.

Purpose: Patients with Type 2 Diabetes Mellitus (T2DM) are at high risk for cardiovascular disease (CVD) and CV mortality. T2DM dyslipidemia is complicated by hypertriglyceridemia and elevated LDL. Thus, debate still exists whether LDL or non-HDL is the correct lipid measure to identify CV risk. Few studies of dyslipidemia in pediatric patients with T2DM exist, so measuring CV risk in this young population remains important. The primary objective of this study was to analyze the type and nature of lipoprotein abnormalities prevalent in children with T2DM and to identify determinants of adverse lipid profiles. We also evaluated whether LDL was comparable to Non-HDL as a risk factor in children with T2DM.

Methods: A retrospective electronic chart review of patients with T2DM (121 subjects with regular lipid profile, 93 with vertical autoprofile at initial visit). A total of 214 subjects (31% male) were included, 77% African American (AA) and 23% European American (EA).

Results: AA were heavier than EA and had higher HDL. Males were heavier, had higher systolic BP and lower HDL. BMI was not associated with any of the lipoprotein measures after controlling for age and sex. However, apolipoprotein B (apoB) is strongly associated with BMI and the relationship enhanced after adjusting for A1C and duration of diabetes. ApoB was significantly associated with A1C. Non-HDL was significantly associated with A1C. LDL pattern B was significantly associated with A1C and was also associated with male gender. HDL types 2 and 3 were negatively associated with BMI and A1C. Patients with an HbA1C >7% had a higher TC, LDL, apoB, non-HDL, and VLDL. When LDL was >130 mg/dl, non-HDL was >160 mg/dl in 96% of the participants.

Conclusions: HbA1C is the main determinant of adverse lipid profiles in children with T2DM, indicating the need for stricter glycemic control in CV risk reduction. In our group, BMI and A1C were associated with adverse lipid outcomes in apoB. Cardioprotective measures HDL 2 and HDL 3 were inversely related to BMI and A1C. For children with T2DM, an LDL based treatment cutoff is sufficient for assessing dyslipidemia.

Association of Masked Hypertension and Pre-hypertension with Subclinical Cardiovascular Disease in the Jackson Heart Study

Nicole Redmond, MD, PhD, MPH; John N. Booth III, MS; Rikki M. Tanner, PhD; Keith M. Diaz, PhD; Marwah Abdalla, MD; Mario Sims, PhD, MS; Paul Muntner, PhD; Daichi Shimbo, MD

Background: Masked hypertension (MHT), defined as non-elevated clinic blood pressure (CBP) and elevated blood pressure on ambulatory blood pressure (ABP) monitoring (ABPM), and prehypertension (PHT) are individually associated with increased cardiovascular disease (CVD) risk. The degree of diagnostic overlap between PHT and MHT and their associations with subclinical CVD including left ventricular mass index (LVMI) or common carotid intima-media thickness (CCIMT) is poorly characterized among African Americans (AAs).

Methods: In the Jackson Heart Study (JHS), a large community-based cohort of AAs in Jackson, MS, CBP measurements and 24-hour ABPM were obtained at baseline (2000-2004) using standardized protocols. Analyses were restricted to 391 participants who were not taking antihypertensive medications with complete data for CBP, ABPM, LVMI measured with 2D echocardiography, and CCIMT taken from carotid ultrasound. Clinic hypertension (HTN) was defined as $\geq 140/90$ mmHg. Non-elevated CBP was defined as $< 140/90$ mmHg and includes both PHT (systolic CBP 120-139 mmHg or diastolic CBP 80-89 mmHg) and normal CBP ($< 120/80$ mmHg). MHT was defined as non-elevated CBP and elevated ABP (awake ABP $\geq 135/85$ mmHg).

Results: Of the 391 participants, 74 (18.9%) had HTN. Among the 317 participants with non-elevated CBP, 185 (58.4%) had PHT and 68 (21.5%) had MHT; 68 (21.5%) had MHT (59 in those with PHT, and 9 in those with normal CBP). In a fully adjusted model (see Table), compared to participants with both PHT and MHT, LVMI and CCIMT was less among participants with non-elevated CBP (including those with normal CBP and PHT) and without MHT. There was no difference in LVMI and CCIMT in individuals with PHT and MHT vs. those with normal CBP and MHT.

Conclusions: For AAs with non-elevated CBP, LVMI and CCIMT were the highest among individuals with MHT, regardless of whether PHT was present. This finding supports using ABPM to detect MHT among AAs with non-elevated CBP.

Table. LVMI and CCIMT by BP categories

CBP Category	Normal Clinic BP (<120/80 mm Hg) (n=132)		PHT (120-139/80-89 mm Hg) (n=185)		Clinic Hypertension ($\geq 140/90$ mm Hg) (n=74)
	Without MHT (n=123)	With MHT (n=9)	Without MHT (n=126)	With MHT (n=59)	-
LVMI (g/m²)					
Mean LVMI (95% CI)	69.71 (66.80 - 72.63)	85.44 (58.15 - 12.74)	73.17 (69.88 - 76.45)	83.13 (76.90 - 89.35)	75.60 (71.43 - 79.78)
Model 1* p-value	-10.20 \pm 3.18 0.002	0.59 \pm 9.36 0.950	-7.72 \pm 3.29 0.020	0 (ref) -	-7.41 \pm 3.69 0.046
Model 2* p-value	-7.19 \pm 3.26 0.029	5.35 \pm 10.01 0.595	-5.09 \pm 3.43 0.140	0 (ref) -	-6.12 \pm 3.71 0.102
CCIMT (mm)					
Mean CCIMT (95% CI)	0.65 (0.62 - 0.67)	0.79 (0.63 - 0.95)	0.66 (0.64 - 0.69)	0.76 (0.72 - 0.81)	0.72 (0.67 - 0.76)
Model 1* p-value	-0.04 \pm 0.02 0.055	0.05 \pm 0.06 0.475	-0.07 \pm 0.02 0.001	0 (ref) -	-0.03 \pm 0.03 0.371
Model 2* p-value	-0.05 \pm 0.02 0.049	0.07 \pm 0.08 0.370	-0.07 \pm 0.02 0.006	0 (ref) -	-0.04 \pm 0.03 0.256

Abbreviations: LVMI – left ventricular mass index; CCIMT - common carotid intima-media thickness; PHT – prehypertension; MHT –masked hypertension

*Data are presented as adjusted difference \pm SE compared to the PHT with MHT group (referent).

Model 1 adjusts for age, sex, and body mass index.

Model 2 adjusts for variables in Model 1 + diabetes status, education level, alcohol consumption, smoking status, physical activity, estimated glomerular filtration rate (eGFR) < 60 ml/min/1.73 m². Model 2 for CCIMT also includes LDL and HDL cholesterol.

Rogers, Lisa, MPH, MS

Poster 27

University of Minnesota, Department of Surgery

Enrollment of Black Men in Prostate Cancer Randomized Controlled Trials

Raymond Ogagarue, MD, MPH; Michael Dumas; Kacy Flowers; Molly M. Neuberger; Folakemi Odedina, PhD; Christopher Warlick, MD, PhD; Badrinath Konety, MD, MBA; Philipp Dahm, MD, MHSc, FACS

Purpose: Black men experience the highest prostate cancer burden in the United States and globally. One of the factors that may contribute to the slow progress in eliminating prostate cancer disparities among Black men is their underrepresentation in randomized controlled trials (RCTs) of new treatment modalities. We performed this study to assess the current status of Black men's participation in RCTs for prostate cancer.

Methods: We performed a protocol-driven systematic review for all published prostate cancer RCTs over a 22-year time period (1992-2013) searching PUBMED and the Cochrane CENTRAL database. We only included RCTs of patients with an established diagnosis of prostate cancer and excluded studies of screening and diagnosis. For studies that resulted in multiple publications, only the initial study was included. We excluded secondary and subgroup analyses.

Results: We identified 530 unique RCTs with a median sample size of 122.5 patients (IQR: 60.0-292.5). A majority of these trials investigated new drugs (68.7%). Of these trials, 18.5% (n=98) reported the enrollment of Black men. In the subset of studies that reported the inclusion of Black men, the median number of patients was 17 (IQR: 8-31), which represented 10.5% (IQR: 6.8%–19.5%) of the study population. Among trials exclusively conducted in the United States (n=183), 41.0% (n=75) reported the inclusion of Black men; the reported median number of Black men was 15 (IQR: 7.0-29.0) representing 12.0% (IQR: 7.0%-20.1%) of the study population. There was no difference in the median percentage of Black men in publically funded (16.5%) versus non-publically (13.0%) funded US-trials (p=0.180). We found no therapeutic trial conducted exclusively in Black men.

Discussion/Conclusions: A majority of prostate cancer trials even if publically funded and conducted in the US do not report the inclusion of Black men. Increased efforts at the community, federal regulatory and funding agency levels appear warranted to address prostate cancer research disparities.

Acknowledgments: We thank the Center for Healthy African American Men through Partnerships (CHAAMPS) and the Department of Defense Office of the Congressionally Directed Medical Research Programs (PC110070) for the funding support.

Ryder, Charity

Poster 28

UAB College of Arts and Sciences

HPV: To Vaccinate or Not to Vaccinate in Rural Alabama

Charity Ryder; Janice Phillips; Yu-Mei Schoenberger, PhD, MPH; Tina Simpson, MD, MPH

Purpose: Human Papillomavirus (HPV) can lead to cervical, vulvar, vaginal, penile, and anal cancers. Vaccinations exist to try to prevent these infections; unfortunately vaccination rates are low.

The objective of this study was to determine ways to increase the number of people getting the HPV vaccine in order to lower the rates of HPV related cancers.

Methods: Interviews were conducted in 3 rural Alabama counties with HPV-vaccinated and unvaccinated adolescents aged 11 to 18 and their parents. Additionally, parents and adolescents completed a survey to collect demographic information. During the interviews, vaccinated adolescents were questioned about their reasons for getting the vaccine and barriers to completion. Unvaccinated adolescents were asked why they had not received the vaccine. Parents of vaccinated adolescents were asked what influenced your decision to have your child vaccinated. Parents of unvaccinated adolescents were asked about their concerns about the vaccine. The interviews were recorded, transcribed, and evaluated qualitatively by three independent coders. The themes were then discussed until consensus was reached.

Results: Twenty-one adolescent (Mean age =13y; Females =11) and twenty-one parent (Female=21) interviews and surveys were conducted. 8 of the adolescents had received at least one HPV vaccination. Sources of knowledge about the HPV vaccine were healthcare providers, schools, parents, television and internet. Unvaccinated adolescents and their parents identified side effects and not having enough information about the vaccine as the major barriers to receiving the HPV vaccination. Recommendations from the healthcare provider (and from the parent for adolescents) as well as desired protection for the future were facilitators of vaccine receipt.

Conclusions: Despite availability of an HPV vaccine since 2006, concerns about vaccine safety and perceived lack of knowledge about the vaccine continue to be barriers for certain communities. Investigators are currently working with a coalition of healthcare providers, parents, and adolescents from these counties to develop a framework for an intervention to address the identified barriers and ultimately increase HPV vaccination.

Safford, Monika, MD

Tuesday – Arlington

UAB School of Medicine, Preventive Medicine

Race–Sex Differences in the Management of Hyperlipidemia: The REasons for Geographic And Racial Differences in Stroke (REGARDS) Study

Monika Safford, MD; Christopher M. Gamboa, MPH; Raegan W. Durant, MD, MPH; Todd M. Brown, MD; Stephen P. Glasser, MD; James M. Shikany, DrPH; Richard M. Zweifler, MD; George Howard, DrPH; Paul Muntner, PhD

Purpose: To examine whether differences in lipid management for race-sex groups compared to white men are due to factors influencing health services utilization or physician prescribing patterns.

Methods: Since physician prescribing is influenced by coronary heart disease (CHD) risk, Adult Treatment Panel III CHD risk categories were constructed using baseline data from participants in the REasons for Geographic And Racial Differences in Stroke study (recruited 2003-2007). Prevalence, awareness, treatment and control of hyperlipidemia were examined for race-sex groups across CHD risk categories. Multivariable models conducted in 2013 estimated prevalence ratios adjusted for predisposing, enabling, and need factors influencing health services utilization.

Results: The analytic sample included 7809 white men (WM), 7712 white women (WW), 4096 black men (BM) and 6594 black women (BW). Except in the lowest risk group, BM were less aware of hyperlipidemia than others. A higher percentage of WM in the highest risk group was treated (83.2%) and controlled (72.8%) than others (treatment 68.6-72.1%; control 52.2-65.5%), with BW treated and controlled the least. These differences remained statistically significant after adjustment for predisposing, enabling, and need factors. Stratified analyses demonstrated that treatment and control were lower for other race-sex groups relative to WM only in the highest risk category.

Conclusions: Hyperlipidemia was more aggressively treated and controlled among WM compared with WW, BM and especially BW among those at highest risk for CHD. These differences were not attributable to factors influencing health services utilization.

Salazar-Gonzalez, Jesus, PhD

Wednesday – Arlington

UAB School of Medicine, Comprehensive Cancer Center

Frequency Distribution and Prognostic Significance of Codon 72 and Intron-3 Polymorphisms Differs with Race in Colorectal Cancer

Jesus F. Salazar-Gonzalez, PhD; Trafina Jadhav, PhD; Balananda Dhurjati Kumar Putcha, PhD; Samir A. S. Amer, MD; Michael P. Behring, MSPH; Sejong Bae, PhD; Upender Manne, PhD

Purpose: African Americans (AAs) exhibit the highest incidence and death rates due to colorectal cancer (CRC) when compared to non-Hispanic Caucasians (CAs). Our objective was to determine differences in the frequency distribution of two polymorphisms in the TP53 gene (codon 72 [Arg72Pro] and intron-3 [PIN3]) by race and assess their prognostic value.

Methods: Genomic DNA was extracted from frozen or formalin-fixed, paraffin-embedded normal colorectal tissues from 240 CAs, 176 AAs and 95 Egyptians with CRC. Genotyping of Arg72Pro polymorphism was done by PCR amplification of genomic DNA and Sanger sequencing or using a commercial taqman genotyping assay. The A1 (no duplication) and A2 alleles (16-bp duplication) of PIN3 were detected by PCR amplified fragment length electrophoresis. Frequency distribution of genotypes was compared by a 2-sample z-test (2-tailed), and patient survival using the χ^2 test and Kaplan-Meier analyses.

Results: AAs and CAs differed in the frequency distribution of Arg/Arg (20% vs 57%, $p < 0.0001$), Arg/Pro (46% vs 33%, $p < 0.007$) and Pro/Pro genotypes (34% vs 10%, $p < 0.0001$). AAs and CAs also differed in the frequency of PIN3 A1A1 (62% vs 72%, $p = 0.034$), but not significantly for A1A2 (31% vs 25%) nor A2A2 genotypes (7.8% vs 3.8%, $p = 0.08$) despite the 2-fold difference. In contrast, AAs and Egyptians had similar frequencies for codon 72 (28% Arg/Arg, 44% Arg/Pro, and 27% Pro/Pro) and PIN3 genotypes (46% A1A1, 41% A1A2 and 13% A2A2). Survival analyses showed that AAs, but not CAs with the Pro/Pro genotype have significantly higher mortality rates due to CRC (log-rank $p = 0.004$) and risk of death (hazard ratio 2.29; 95% confidence interval (CI) 1.30-4.04) than those with Arg/Arg and Arg/Pro. Also AAs, but not CAs with A2A2 genotype had higher mortality rates (log-rank $p = 0.015$) and risk of death (hazard ratio 4.26; 95% CI 1.32-13.78) than A1A1 and A1A2 carriers. Interestingly, AAs with a combined Pro/Pro+A2A2 genotype had a higher proportion of deaths (60%, 6/10) than CAs carriers of Pro/Pro+A2A2 (25%, 2/8).

Conclusions: The higher frequency of Pro/Pro and A2A2 genotypes in CRC patients with African descent/admixture is associated with shorter survival. These findings suggest that the prognostic value of these markers varies by race.

Tuskegee University, Integrative Biosciences

Evaluation of Synthetic Lytic Peptide for the Potential Inhibition of Human Immunodeficiency Virus Replication

S. Samuels, M. Cho, M. Egnin, T. Nashar, M. Banasik, J. Jaynes

Purpose: With over 2 million new HIV-1 infections every year, development of a protective vaccine or treatment against the virus is urgently needed in the battle against AIDS. A major bottleneck in the production of an effective AIDS vaccine is the inability of vaccine candidates tested thus far to induce neutralizing antibodies that are broadly cross-reactive against a large number of virus isolates that are antigenically divergent. One alternative to this impediment would be to redesign and evaluate novel treatment regimens using synthetic peptides, which can induce membrane defects and bilayer disruption as well as target intracellular molecules, such as DNA/RNA or enzymes. Synthetic lytic peptide *jc41n*; a 23 amino acid peptide, capable of inhibiting the progression of HIV has been developed at Tuskegee University and evaluated in collaboration with Iowa State University.

Methods: In this study key steps in the infection cycle were targeted by the synthetic peptide *jc41n* to measure its efficacy on pseudovirus neutralization, pseudovirus production, and specific viral proteins (p24, p17, p51, p32, TAT, NEF). Peptide neutralization assay measures pseudovirus neutralization in TZM-bl cells as a function of a reduction in Tat-induced luciferase (Luc) reporter gene expression after a single round of virus infection. Virus production assay produce molecularly cloned Env-pseudotyped viruses in HEK293T cells by co-transfection with an Env-expressing plasmid plus a backbone plasmid containing a defective Env gene. Co-transfection generates pseudovirus particles that are able to infect cells, but generally are unable to produce infectious progeny virions, resulting in single round infection.

Results: Treatment of infected cells showed an 80% inhibition of DH12 and SF162, two well characterized pseudo virus strains, in neutralization assays. Peptide treated DH12 and SF162 show significant reduction as compare to no peptide control.

Discussion/Conclusions: Decrease in either viral infectivity due to prevention of viral entry, blocking or budding, or assembly/packaging would be an enormous step in treatment and or prevention of HIV.

Schoenberger, Yu-Mei, PhD, MPH

Tuesday – Centennial I

UAB School of Medicine, Preventive Medicine

Usage of Social Networking Sites in Research and Collaboration

Yu-Mei M. Schoenberger, PhD, MPH; Maria C. Norena, BS; Mona N. Fouad, MD, MPH; James M. Shikany, DrPH

Introduction: Information and communication technologies are a practical and timely means to transfer valuable research findings to policy makers, the public, and other stakeholders. Social networking (SN) sites (e.g., Facebook, Twitter, LinkedIn), are rapidly increasing in popularity, and its usage permeates all age groups, cultures, and socio-economic backgrounds. The purpose of this study was to assess the use of SN sites among two NIH-funded U54 partnership grants (Mid-South Transdisciplinary Collaborative Center [Mid-South TCC] and Center for Healthy African American Men through Partnerships [CHAAMPS]).

Methods: An online survey was developed, which included 27 items focusing on usage of SN sites; recent SN activities; interest in SN training; and demographics. The link to the survey was distributed to 107 individuals via the project email distribution lists (Mid-South TCC, n= 69; CHAAMPS, n=38).

Results: The survey was completed by 64 participants (60%) (Mid-South TCC, n=38/69, 55%; CHAAMPS, n=26/38, 68%). Over half of participants were female (59%), 47% were Caucasian, 31% African American, and 16% Asian. Median age was 50 y. 39% indicated they were investigators, 25% study staff, and 26% community members. The most common SN sites for which participants currently have accounts were Facebook (75%), LinkedIn (58%), and Twitter (42%). SN activities engaged in within the past 6 months included reading (75%) and sharing (50%) updates/messages from friends/colleagues, watching videos (63%), and reading ratings/reviews (50%). On average, SN sites are accessed multiple times/day by 8% of participants, once/day by 9%, and a few times/week by 14%. Majority of participants (68%) indicated they would be interested in attending a training webinar that focused on how to use SN sites, and 45% were interested in attending an in-person workshop. Almost half of the participants were interested in having someone from their organization participate in a webinar (45%) or in-person workshop (38%).

Conclusions: Overall, participants are actively engaged in use of SN sites. The results of the survey will be used to develop a comprehensive dissemination plan focusing on the most popular SN sites among Center members. By building a social media presence, both the Mid-South TCC and CHAAMPS will reach the broadest audience.

Louisiana State University Health Sciences Center, School of Public Health, Epidemiology

Effect of Neighborhood Disadvantage on Metabolic Control among Pediatric Diabetes Patients

Richard Scribner, MD, MPH; James Hempe, PhD; Cruz Velasco-Gonzalez, PhD; Nicole Pelligrino, MPH

Purpose: Among pediatric diabetes patients disparities exist in metabolic control that are independent of individual level demographic factors (e.g., individual SES). The study explores the potential role of residing in a disadvantaged neighborhood on this disparity.

Methods: Patients (n=84) at Children's Hospital were recruited with informed consent and demographic information was self-reported. Patient home address was geocoded to the census tract level and a concentrated disadvantage index (CDI) score assigned to each patient. Hemoglobin A1c (HbA1c) was used as a metric of metabolic control. The relationship between HbA1c and CDI was assessed in Spearman correlation analyses partialled for various covariates including age, gender, race, and treatment modality. In addition, stratified analyses by race were conducted due to the strong correlation between race and CDI.

Results: HbA1c was strongly correlated with CDI with no covariates partialled ($r=0.40$; $p=0.002$). The relationship remained strong in analyses controlling for age, gender, and treatment modality. When the analysis was partialled for race the effect of CDI was no longer significant, however race and CDI were highly correlated ($r=0.74$; $p=0.0001$). In analyses stratified by race a correlation between HbA1c and CDI was observed among black patients ($r=0.31$; $p=0.07$) but not among white patients ($r=0.053$; $p=0.72$).

Conclusions: The strong correlation between CDI and black race, in this sample, appears to have masked a relationship between neighborhood disadvantage and metabolic control among black patients. The lack of a relationship among white patients suggests the effect is not a class effect but an effect unique to the black experience in disadvantaged neighborhoods.

Shendre, Aditi, MPH

Poster 30

UAB School of Public Health, Epidemiology

Influence of CYP4F2 on Dose, Anticoagulation Control, and Risk of Hemorrhage among African American and European American Warfarin Users

Aditi Shendre, MPH; T. Mark Beasley, PhD; Deborah A. Nickerson, PhD; Nita A. Limdi, PharmD, MSPH, PhD

Purpose: A wide variation in dose and response is observed during anticoagulation therapy with warfarin. A significant portion of variability in dose is explained by single nucleotide polymorphisms (SNPs) in cytochrome P450 2C9 (*CYP2C9*) and Vitamin K epoxide reductase complex subunit 1 (*VKORC1*) across racial groups. *CYP4F2* (rs2108622; p.V433M) explains variability in dose among European Americans but its influence on warfarin dose and response has yet to be fully examined, especially in African Americans. Therefore, we assess the influence of *CYP4F2* on stable warfarin dose, anticoagulation control (percent time in target range; PTTR) and risk of major hemorrhage among 649 European and 430 African Americans patients in a prospective warfarin cohort.

Methods: We evaluated the influence of the *CYP2F2* genotypes on the three outcomes of interest using an additive model with adjustment for clinical factors, co-medications, and established genetic predictors. We performed multivariable linear regression modeling for warfarin dose and anticoagulation control (PTTR), and Cox proportional hazards regression for risk of hemorrhage to test their association with *CYP2F2*.

Results: The frequency of the minor (A) allele was higher in European (52%) compared to African (16%) Americans. The *CYP4F2* A allele was associated with a 7.0% higher ($p=0.03$) warfarin dose [5.5% higher ($p=0.08$) for AG, 13.4% higher ($p=0.03$) for AA vs. GG genotype] in European Americans. *CYP4F2* did not significantly influence warfarin dose in African Americans [0.1% higher ($p=0.98$) for AG, 13.6% higher ($p=0.60$) for AA genotype]. PTTR was not influenced by *CYP4F2* for either European ($p=0.59$) or African American patients ($p=0.78$).

The incidence of hemorrhage was lowest among patients with the AA genotype (1.1/100pyrs) compared to the AG (8.1/100pyrs) and GG (6.8/100pyrs) genotype. Patients with AA genotype had a lower risk of hemorrhage [HR: 0.17 (0.02-1.37), $p=0.09$] compared to patients with GG or AG genotype.

Conclusions: Incorporation of *CYP4F2* genotype can provide additional improvement in warfarin dosing among European Americans. Additionally, *CYP4F2* AA genotype appears to be protective against the risk of hemorrhage but further research is needed to confirm these associations and to establish the utility of *CYP4F2* in the care of a racially diverse patient population.

Silber, Andrea, MD

Tuesday – Centennial I

Yale Medical School, Department of Medicine

Changing the Ratio: Racial and Ethnic Diversity in Cancer Clinical Trials in New Haven, Connecticut

Andrea Silber, MD; Karen Rabenau, MD; Bonnie Lurie, RN

Purpose: The NIH Revitalization Act of 1993 required that all NIH-funded medical research include women and minorities but 21 years later, all minority populations are underrepresented. Our goal was to analyze the barriers to minority participation in cancer clinical trials at the Yale Cancer Center, an NCI designated cancer center. Increased recruitment and participation into therapeutic trials is a recognized approach to reduce cancer health care disparities

Methods: We reviewed the minority participation in YCC clinical trials from 2010-2013. These numbers were compared to the ethnic demographics in New Haven, Connecticut where 66% of its inhabitant's self-describe as Non-White. Our analysis included the categories of more than one race, in addition to Black and Hispanic. In 2014, we convened two focus groups of cancer survivors at an African American church to explore barriers to clinical trial participation. The first focus group was primarily female, and the second group was predominantly male.

Results: During the years 2010-2014, minority accrual doubled from 6.9% to 14%. Over the same period, clinical trial accrual quadrupled, and was a focus of the YCC. Some of the comments from the focus groups include: Tuskegee, Henrietta Lacks and fear of experimentation/exploitation. Another recurrent topic was lack of knowledge about clinical trials: including educational resources and financial resources. Several participants expressed desire to help others with cancer in their ethnic group

Discussion/Conclusions: Although clinical trial participation by ethnic minorities in New Haven doubled during a period of increased accruals, the percentage does not mirror the ethnic makeup of New Haven, who carries a disproportionate cancer burden /poorer outcome. The focus groups provided information about desire for more knowledge and strong community altruism. In addition, investment in the community may decrease mistrust and suspicion. We plan to establish ties to practitioners in federally qualified health centers as well as establish a clinical trial navigator program. This initiative is well timed due to new opportunities provided by the Affordable Care Act.

Singleton, Chelsea, MPH

Tuesday – University

UAB School of Public Health, Epidemiology

Association between Farm-to-Consumer Outlet Use and Daily Fruit and Vegetable Intake among WIC Program Participants in Jefferson County, Alabama

Chelsea R. Singleton, MPH; Olivia Affuso, PhD

Background: Farmers markets, farm stands, community gardens and community supported agriculture (CSA) programs (i.e. farm-to-consumer outlets) have been proposed as a mechanism to increase healthy food access in deprived communities. Little is known about the effect farm-to-consumer outlet (FTC) use has on the diet-related behaviors and health of lower income individuals. This research aimed to examine the association between FTC outlet use and daily fruit and vegetable intake among participants of the Supplemental Nutrition Program for Women, Infants and Children (WIC) in Jefferson County, AL.

Methods: A cross-sectional study was conducted between October 2014 and January 2015. A total of 312 women were recruited from the WIC program office located in the Jefferson County Department of Health. Women who were Alabama residents, ≥ 19 years old and received WIC vouchers during the 3 months prior to study screening were considered eligible. Participants were asked to complete the Block fruit-vegetable-fiber screener and a questionnaire that collected information on fruit and vegetable purchasing behaviors. Participants that indicated they purchased produce from any FTC outlets during the most recent Birmingham market season were categorized as FTC outlet users. Logistic regression models were used to examine the association between FTC outlet use and daily consumption of 5 or more servings of fruits and vegetables.

Results: Study participants were 67.2% Non-Hispanic Black with a mean age of 27.6 (± 6.1) and a mean body mass index (BMI) of 30.5 (± 7.9). There were 81 (26.0%) and 231 (74.0%) women that reported being FTC outlet users and non-users respectively. Only 36.2% of participants consumed 5 or more servings of fruits and vegetables daily. FTC outlet use was found to be associated with increased odds of consuming 5 or more servings of fruits and vegetables daily (OR: 2.1; 95% CI: 1.26 – 3.54). After adjusting for age, race/ethnicity, education level, marital status and BMI, the association remained significant (OR: 1.85; 95%: 1.07 – 3.19).

Conclusions: FTC outlet use is associated with daily intake of fruits and vegetables among lower income women in Jefferson County, AL. More information is needed to better understand the health and behavioral implications of FTC outlet use.

How Social Determinants of Health Contribute to Human Trafficking in African American Communities and How REEP (Recognize-Engage-Educate-Promote) Changes the Landscape

Sunny Slaughter

Purpose: Human trafficking is the fastest growing criminal enterprise impacting homes, schools and communities across the U.S. each and every day. The trafficking of persons is by its very nature “slavery” re-visited, re-invested and re-named, and yet today is unrecognized as a problem in African American communities. And for a historical population in which the sale, trade, and exploitation of human beings for sex and labor has most notably contributed to the profitability of mankind, these facts are disturbing but further lend credence to the existence of structural and organizational racism within our society. Information provided by the media, materials developed by agencies and organizations, presentations made to public, and even the presence of experts who speak to the topic, continue to disengage communities of color about the vulnerability of trafficking exploitation and its impact on black America. In addition, creative language of exclusivity or information used in gaining traction for funding which speak to “the new face of human trafficking” has been further used to hijack the case and cause of addressing the prevalence of human trafficking victims of African descent.

Methods: Over a two year period interviews and meetings were conducted with African American elected officials, religious leaders, community leaders, training of law enforcement, and presentations before congregations and events which were specifically targeted for engagement with African Americans on the topic of human trafficking.

Results: Social justice, poverty and housing, health disparities, education and cultural considerations are all contributory factors which exacerbate the existing vulnerability of African American communities and contribute to the prevalence of human trafficking criminal behavior and victimization. The correlation between social determinants, crime and victimization will be discussed and addressed in detail.

Discussion: Introducing the community-based plan R.E.E.P. (Recognize the problem. Engage the people. Educate with purpose. Policies for change) within predominately African American homes, schools and communities will empower the people for preventive action in reducing vulnerability of human trafficking in their communities.

UAB School of Public Health, Health Care Organization and Policy

A Qualitative Analysis of the Role of Social Norms and Stigma in Reproductive Decision-making in Alabama

Whitney Smith, MPH; Kristi Stringer, MA; Kate Cockrill, MPH; Kari White, PhD; Tina Simpson, MD; Janet Turan, PhD

Purpose: The purpose of this study was to examine how social stigma informs health-related decision-making for low-income, young women faced with an unintended pregnancy. We focus on norms and stigmas related to unplanned pregnancy, single parenthood, adoption, and abortion among young women.

Methods: We conducted six focus groups (n=34) and twelve cognitive interviews with low-income women between the ages of 19-24, living in the Birmingham area between December 2013 and July 2014. Participants were recruited from three local health department clinics and a local community college. Focus groups were stratified by race to explore variations. Discussions were audio-recorded, transcribed, and coded for themes related to reproductive norms and stigmas.

Results: Discussions reflected a shared understanding of community expectations related to pregnancy and pregnancy-related decision-making. Despite expectations to that contrary, unplanned pregnancy was perceived as a frequent occurrence within the participants' communities. Participants reported that women faced with unintended pregnancies are expected to bear and raise their child regardless of personal circumstances (education, money, relationships, etc.). Though all women faced with an unintended pregnancy were seen as stigmatized to some degree (often labeled promiscuous), those who choose to have and raise their child receive more positive social labels such as “strong,” “responsible,” and “selfless”. Participants reported that adoption and abortion were perceived as less common and unacceptable alternatives, or acceptable only within limited circumstances. Young women who chose these options were commonly defined as “irresponsible”, “weak”, and “selfish”. Because of these stigmatizing labels, participants felt that these options were shameful, and women who chose these alternatives often choose not to disclose their pregnancy and related decision.

Discussion/Conclusions: This research suggests a need for a greater understanding of stigma as a social determinant of reproductive health outcomes and individual health decision-making. Stigmatizing attitudes related to pregnancy and reproductive decision at the individual- and community-levels impact individual health decision-making. Young women are rewarded for conformity and risk the loss of social status (stigmatized) when norms are transgressed. An understanding of reproductive norms and stigma may inform health care and public health advocates, and empower young women to be more active participants in their own reproductive health decisions.

Strayhorn, Shaila, MPH

Poster 33

University of Michigan, School of Arts and Humanities

Relationship of Religious Involvement and Major Depressive Disorder in African American Adult Males: The National Survey of American Life (NSAL)

Strayhorn, Shaila, MPH

Purpose: The purpose of this study is to investigate the relationship between religious involvement and both lifetime major depressive disorder (MDD) and 12-month major depressive disorder within the African American adult male population of the National Survey of American Life.

Methods: A total of 1271, African American adult males were utilized for this study, who were 18 years and older from 2001-2003. Religious involvement was defined by the following four measures: 1. non-organizational (involvement outside of the church such as listening to religious radio programs), 2. organizational (frequency of physical attendance in service), 3. subjective religious participation (inquiring how religious the participant is), and 4. religious coping (looking to God for strength or the importance of prayer in stressful situations).

Results: The organizational religiosity factor, a few times per year or a few times per month, was statistically associated with a lower odds of 12-month MDD after adjusting for age (OR, 0.432, 95% CI, 0.196- 0.952).

Conclusion: It was therefore concluded that certain categories of organizational religious involvement, can play a vital role in reducing the likelihood of having 12-month MDD. Findings from these studies may assist in developing an effective intervention, which can be utilized to reduce MDD among African American men.

Suswam, Esther, DVM, PhD

Wednesday – Arlington

UAB School of Medicine, Neurology

Expression and Subcellular Localization of Tristetraprolin in Colorectal Cancers of African American and Caucasian Patients

Esther A. Suswam, DVM, PhD; Balananda-Dhurjati K. Putcha, PhD; Amit K. Tiwari, PhD; Trafina Jadhav, PhD; Lualhati Harkins, MS; Samir Amer, MD; Isam-Eldin Eltoun, MD; Rong J. Guo, MD; Sejong Bae, PhD; Upender Manne, PhD

Introduction: The tumor suppressor, tristetraprolin (TTP), is downregulated in many cancers. TTP functions as a co-repressor of estrogen receptor-activation through interaction with histone deacetylases on the gene promoter, and nuclear TTP is linked to its suppressor function. Loss of rapid RNA degradation by TTP permits upregulation of oncogenes. We observed that TTP is suppressed in colorectal cancers (CRCs). Since CRCs of African Americans (AAs) often have worse outcomes relative to Caucasian Americans (CAs), we analyzed expression of TTP and its targets and assessed its subcellular localization in CRCs of AAs and CAs and in cultured colon cancer cells.

Methods: Paired normal and CRC tissues from 45 patients (AA=26 and CA=19) were evaluated by qPCR for mRNA expression of TTP and its targets, IL-8 and VEGF. Tissues were assayed for immunophenotypic expression by immunohistochemistry (IHC), and the staining patterns (nuclear and/or cytoplasmic) were assessed. To determine if TTP effects the NF- κ B pathway, colon cancer cells (CCL235, HCT116, and LoVo) were stimulated with TNF- α , and total RNA was analyzed for expression of TTP, IL-8, VEGF, and cIAP2.

Results: In 31 of 45 (69%) CRCs, TTP mRNA was downregulated, and low TTP levels correlated with advanced tumor stages (III and IV). Low TTP levels were present in 21 of 26 (81%) of AAs and in 12 of 19 (63%) of CAs. There was an inverse correlation between TTP and IL-8 expression in relation to tumor stage. These results were confirmed by IHC. Furthermore, there was reduced or lack of nuclear staining of TTP in malignant cells relative to normal/benign epithelial cells; TTP was localized primarily in the cytoplasm of malignant cells. In cultured colon cancer cells, TTP mRNA levels inversely correlated with levels of IL-8, VEGF, and cIAP2 mRNAs, suggesting interactions of TTP with these cell survival factors.

Conclusions: There was reduced TTP expression in CRCs of AAs and decreased nuclear expression in malignant cells. TTP negatively regulated expression of cell survival factors in the NF- κ B pathway. This work is supported by a career development supplement to U54-CA118948.

UAB College of Arts and Sciences, Psychology

Identification of Motives for Eating Tasty Food in African American Youth: What Motives Put Them at Risk for Obesity and for Binge-eating Disorder?

Dani Sylvester; Phillip Morgan, BS; Lowell Wenger, PhD; Sylvie Mrug, PhD; Mary Boggiano, PhD

Purpose: As many as 26% of African American (AA) vs. 14% of non-Hispanic White adolescents in the U.S. are obese. Eating in the absence of hunger contributes to obesity, and the foods consumed under these conditions tend to be palatable but energy-dense and nutrient-poor.

However, little is known regarding individual motives behind this habit. The goal of this study was to identify potential motives using the “Kids Palatable Eating Motives Scale” (K-PEMS) which was developed in our lab. The study also examined if any specific motive(s) were associated with body mass index (BMI) and with binge-eating disorder (BED) traits. BED exacerbates BMI and is not commonly studied in minority youth.

Methods: BMIz and responses to the K-PEMS and the Children’s Binge Eating Disorder Scale (C-BEDS) were obtained from low-income AA adolescents in Birmingham, AL. Principal components analysis was used to factor-analyze the K-PEMS, and linear and logistic regressions to assess associations between the motives, BMIz scores and BED traits.

Results: The K-PEMS identified eating palatable foods for four motives: Social, Conformity, Reward Enhancement, and Coping motives. A greater frequency of eating these foods for Social and Conformity motives, and a lower frequency of eating these foods for Reward Enhancement accounted for 39% of the variance in BMIz among the overweight and obese adolescents. Eating to Cope was higher for females than males ($p < 0.01$) and was related to a 3-fold ($p < 0.05$) increase in the C-BEDS amended criteria for BED which was met by 7% of the participants.

Discussion: Results provided preliminary validation of the K-PEMS as a useful tool in identifying adolescents’ primary motives for eating tasty foods unrelated to hunger. Pressures to fit in and be more social, both external factors, as well as a decreasing pleasure in the food itself, were significant correlates of weight-gain.

Conclusion: Once one’s primary motive is identified, it can be targeted with much more tailored behavioral and cognitive approaches to achieve healthier eating habits and to reduce the risk of obesity and BED as adults. Finally the data suggest that young AA girls may be at greater risk for BED than is commonly believed.

Szaflarski, Magdalena, PhD

Wednesday – Centennial II

UAB College of Arts and Sciences, Sociology

Social Determinants of Health Lifestyles in Poland: Effect Changes over Time

Magdalena Szaflarski, PhD; Aowen Zhu; Chenoia N. Bryant; Tuba Demir; Haley Medved Kendrick

Purpose: There is a growing literature on social determinants of health in former Eastern Europe, but factors shaping health lifestyles remain poorly understood. This study examined changes in social status (structure-driven) and mediating psychosocial (agency-driven) effects on health lifestyles in post-communist Poland.

Methods: We conceptualized health lifestyles along four dimensions: risky behaviors, health-risk and health-promoting consumption, and social interaction. We extracted data on health lifestyles, social statuses (age, gender, and socioeconomic status [SES]), and attitudes (beliefs in science, religiosity, importance of social relations, and importance of leisure/relaxation) from the Polish General Social Survey for 1996 and 2002. The data were analyzed using path analysis. We estimated effects of status and attitudinal variables on risky behaviors and social interaction (continuous variables) and health-related consumption (binary outcomes) using ordinary-least-squares and logistic regression, respectively. We computed direct, indirect, and total causal effects (unstandardized/standardized regression coefficients).

Results: As expected, risky behaviors were more prevalent among men than women and declined with age and religiosity. Surprisingly, education/SES had no effects on risky behaviors, and risky behaviors were more prevalent among married versus nonmarried individuals. Gender and religiosity had the largest effects on risky behaviors while beliefs in science had the smallest. Per our hypotheses, social interaction increased with importance of social relations and religiosity while it declined with age and education, but, unexpectedly, it was higher among men than women. Most SES variables were directly associated with health-risk consumption but only education affected health-promoting consumption; importance of leisure/relaxation had no significant effects. The results showed practically no indirect effects of the status variables through individual attitudes. Further analyses will focus on differences in effects across the two survey years.

Discussion/Conclusion: This study suggests dominance of social status over attitudinal influences on health lifestyles in Poland. We found some surprising effects of social/psychosocial variables. In the West, education and married status typically protect individuals against risky behaviors, and women’s health benefits from higher degrees of social interaction vis-à-vis men, but it is not the case in Poland. We discuss features of Polish society, including communist legacy, which may help to explain these findings.

Velez-Ortiz, Daniel , PhD

Wednesday – Centennial II

Michigan State University, School of Social Work and Julian Samora Research Institute

Culture, Gender, and Depression: Puerto Rican Older Adults' Experiences with Depression

Daniel Velez-Ortiz, PhD

Purpose: The purpose of this pilot study was to create culturally grounded knowledge about awareness, misconceptions, and personal beliefs associated with depression among older Puerto Rican adults. Puerto Ricans are the second largest Latino group in the United States. Given the size of this population, it is alarming that research has found Puerto Ricans to have the highest likelihood of psychiatric disorders among all Latino groups. Further, mental health service utilization and outcomes have been found to be consistently poor for Puerto Rican older adults when compared to other groups of older adults.

Methods: This study used focus group interviews with Puerto Rican older men (n=13) and women (n=12) in a Midwestern large metropolitan area who attended a senior center. Participants were asked to talk about their experiences with depression and its treatment, as it related to themselves or other family and friends. Interview data was transcribed verbatim and thematically analyzed to identify patterns and cultural expressions as well as perceptions on depression expressed by the participants. ATLAS.ti software was used to perform data analyses.

Results: The study revealed that overall there is much stigma about depression among Puerto Rican older adults. Both men and women recognized the stigma that comes with experiencing depression. Male participants expressed causes of depression in terms of economic issues, while female participants expressed depression causes related to marital conflict. Additionally, female participants mentioned hiding symptoms of depression to avoid judgment by others.

Discussion/Conclusions: The findings highlight the importance of examining gender differences in depressive symptoms and management. The role of gender holds important differences in how social factors influence behavioral health. Puerto Ricans are a large and rapidly growing segment of the Latino population in the U.S. that is experiencing alarmingly high levels of depression, so it is imperative to learn more about them as a distinct population. The stories told by participants enhance our knowledge about the cultural expressions of Puerto Rican older adults toward depression. Findings can help to develop culturally relevant clinical interventions that are targeted to Puerto Rican older adult's experience of depression.

Williams, Neely, MDiv

Poster 36

Meharry Vanderbilt Alliance

A Community-engaged Approach to Measuring Trust among Underrepresented Groups

Alaina P. Boyer, PhD; Alecia Fair, DrPH; Brett W. Poe, BS; Lisa Sherden, BSN; Rev. Neely Williams, MDiv; Duane Smoot, MD; Yvonne Joosten, MPH; Consuelo H. Wilkins, MD, MSCI

Trust is an often-cited barrier to participating in research, especially among underrepresented populations. Measuring trust is complex, and there are few validated measures of trust in biomedical research. To meaningfully engage patients and consumers, we used a community-engaged approach to measure trust and assess barriers to participating in patient-centered outcomes research.

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Meharry Vanderbilt Alliance

Engaging Minority Participants in Research Using Community Engagement Studios

Consuelo H. Wilkins, MD, MSCI; Yvonne A. Joosten, MPH; Tiffany L. Israel, MSSW; Neely A. Williams, MDiv; Leslie R. Boone, MPH; David G. Schlundt, PhD; Charles P. Mouton MD, MS

Engaging communities in research increases its relevance and may speed the translation of discoveries into improved health outcomes. Many researchers lack training to effectively engage stakeholders, while academic institutions lack infrastructure to support community engagement. Minorities are less likely to be engaged in research, especially as research advisors. Strategies to meaningfully engage underrepresented groups in research are needed to address health disparities.

Is There a Racial Disparity in Access to and Use of the Patient-centered Medical Homes? Empirical Evidence from a U.S. Nationally Representative Sample

Haichang Xin, PhD

Purpose: The patient-centered medical home (PCMH) has emerged as an innovative healthcare delivery model that may improve primary care quality and attenuate disparities. This study examined whether there is a racial disparity in access to and use of PCMH practices using a US nationally representative sample.

Methods: This retrospective cohort study used data from the 2010-2011 Medical Expenditure Panel Survey. This study focused upon individuals aged 18 and older with complete data for all five rounds.

The dependent variable was PCMH group status, including a “full PCMH”, and a “partial PCMH” (that is, with a usual source of care but not a PCMH), with the reference group being the “no regular provider” group. Race was the independent variable that consisted of the African American, White, Hispanic, and other races including American Indian, Asian, and Pacific islanders. The marginal effect following a multivariate ordered logit model was employed to analyze access to and use of the PCMH group status in 2011, after controlling for covariates in 2010. The weights and variance were adjusted using the survey procedures to yield nationally-representative results.

Results: The final sample consisted of 9,763 adults. Among them, there were 4,540 White individuals, 1,857 African Americans, 1,003 other races, and 2,363 Hispanics. In the multivariate logit model, compared to White individuals, African Americans were observed to have 15.3% lower odds of getting access to and having use of the full PCMH practices (OR=0.847, p=0.046) as opposed to the combined partial PCMH and the “no regular provider” practices, with a marginal effect (at means) of 4.1% lower predicted probability of the full PCMH access and use (0.474 versus 0.515). However, compared to Hispanic and other races, African Americans had similar odds of getting access to and having use of the full PCMH practices (OR=1.113, p=0.340, and OR=1.110, p=0.472, respectively).

Conclusions: While African Americans had lower odds in access to and use of PCMH practices compared to White individuals, they did not differ significantly from the Hispanic and other race. Moreover, the nominal 4% racial disparity between African Americans and White individuals in predicted probability of access to and use of the full PCMH shed light on the promise of implementing PCMH models in narrowing this racial disparity gap in the future as clinics are transforming to a higher level of PCMH practices.

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Mid-South Transdisciplinary Collaborative Center for Health Disparities Research (Mid-South TCC)

The Mid-South TCC is a regional academic-community research consortium that investigates the social determinants of health disparities in obesity and related chronic diseases in six Mid-South states (Alabama, Mississippi, Louisiana, Arkansas, Tennessee, and Kentucky) and implements interventions to ameliorate such disparities. uab.edu/midsouthtcc

Center for Healthy African American Men through Partnerships (CHAAMPS)

CHAAMPS is a national academic-community research consortium that seeks to address the socioeconomic, behavioral, and biological factors driving the disparities in unintentional and violence-related injuries and chronic diseases in African American men, with the goal of improving the health of African American men throughout their life course.

Gulf States Health Policy Center

The Gulf States Health Policy Center is a comprehensive community, education, and research center focused on improving health outcomes in the Gulf States region (Alabama, Mississippi, Louisiana, Florida, and Texas). The Center's work involves coalition building, health education, and interdisciplinary, community-driven research. It is committed to helping create a more healthy and fit nation.

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