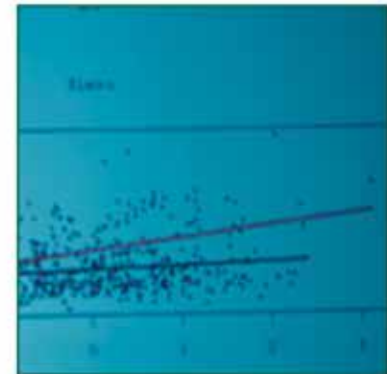
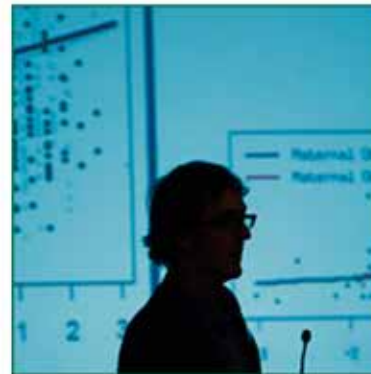
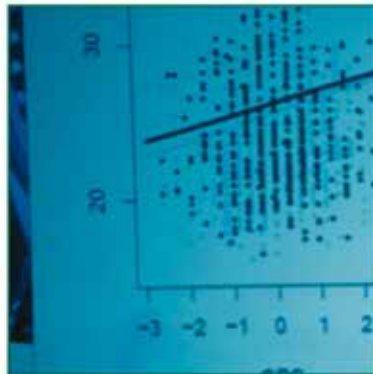


UAB 11TH ANNUAL **HEALTH DISPARITIES RESEARCH SYMPOSIUM**



The Science of Health Disparities: From Discovery to Delivery

April 21, 2016
Birmingham, Alabama



UAB MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH CENTER



Dear Symposium Guests,

With great pleasure we welcome you to the 11th 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 11th anniversary edition, the symposium is co-sponsored by two national transdisciplinary collaborative centers (TCCs) for health disparities research: the Gulf States Health Policy Center, whose work is to improve health rankings of the Gulf States region and the Mid-South TCC, whose focus is investigating the social determinants of health in obesity and related chronic diseases in six mid-south states.

We extend a warm welcome to our keynote speakers, Dr. Eliseo J. Pérez-Stable, Director of the National Institute on Minority Health & Health Disparities, and Dr. Leonard Jack, Jr., Director of the Division of Community Health, Centers for Disease Control and Prevention, who will share their insights about challenges and opportunities in the multidisciplinary 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!

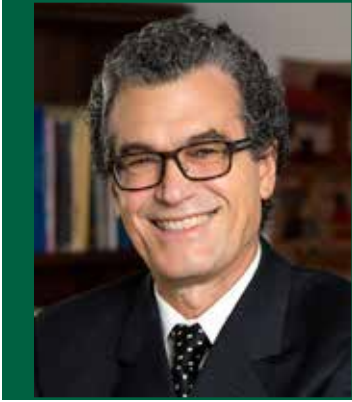
We hope that you will use this scientific forum to enrich your views, share ideas and perspectives with colleagues, create networks, and generate collaborations that will bear future projects.

With best wishes for a productive and enjoyable meeting,

Mona N. Fouad, MD, MPH
Senior Associate Dean for Diversity and Inclusion
UAB School of Medicine
Director and Professor, Division of Preventive Medicine
Director, UAB Minority Health &
Disparities Research Center
PI, Mid-South Transdisciplinary Collaborative Center

Regina Benjamin, MD, MBA
Founder and CEO, BayouClinic
18th U.S. Surgeon General
NOLA.com/Times Picayune Endowed Chair of
Public Health Sciences at
Xavier University of Louisiana
PI, Gulf States Health Policy Center

PLENARY SPEAKER



Eliseo J. Pérez-Stable, MD

Director of the National Institute on
Minority Health and Health Disparities (NIMHD)
at the National Institutes of Health (NIH)

Eliseo J. Pérez-Stable, MD oversees NIMHD's \$280 million budget to conduct and support research, training, research capacity and infrastructure development, public education, and information dissemination programs to improve minority health and reduce health disparities. NIMHD is the lead organization at the National Institutes of Health (NIH) for planning, reviewing, coordinating, and evaluating minority health and health disparities research activities conducted by NIH.

Dr. Pérez-Stable's expertise spans a broad range of health disparities disciplines. His research interests have centered on improving the health of racial and ethnic minorities and underserved populations, advancing patient-centered care, improving cross-cultural communication skills among health care professionals, and promoting diversity in the biomedical research workforce. Recognized as a leader in Latino health care and disparities research, Dr. Pérez-Stable spent 32 years leading research on smoking cessation and tobacco control policy in Latino populations in the United States and Latin America, addressing clinical and prevention issues in cancer screening, and mentoring over 70 minority investigators.

Prior to becoming NIMHD Director, Dr. Pérez-Stable was a professor of medicine and chief of the Division of General Internal Medicine at the University of California, San Francisco (UCSF). He was also director of the UCSF Center for Aging in Diverse Communities, which is funded by NIH's National Institute on Aging, and director of the UCSF Medical Effectiveness Research Center for Diverse Populations.

Dr. Pérez-Stable was elected to the National Academy of Medicine (formerly Institute of Medicine) of the National Academy of Science in 2001. He earned his BA in chemistry from the University of Miami, his MD from the University of Miami, and completed his primary care internal medicine residency and research fellowship at UCSF.

PLENARY SPEAKER



Leonard Jack, Jr., PhD, MSc

Director, Division of Community Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Dr. Leonard Jack, Jr. joined the National Center for Chronic Disease Prevention and Health Promotion as Director of the Division of Community Health in January, 2013. In this capacity, Dr. Jack provides national leadership around the division's vision and mission to advance the science and practice of community health. Dr. Jack returned to the Centers for Disease Control and Prevention after many years of serving in various academic appointments and leadership capacities at the university level.

Dr. Jack served as Associate Dean for Research; Director of the Center for Minority Health, Health Disparities, Research and Education; Endowed Chair of Minority Health and Health Disparities Research; and Professor in the College of Pharmacy at Xavier University of Louisiana. Dr. Jack was the Founding Chair of the Department of Public Health Sciences in the College of Arts and Sciences at Xavier University of Louisiana.

Prior to this appointment at Xavier University of Louisiana, Dr. Jack held the Jim Finks Endowed Chair of Health Promotion and served as Professor of Behavioral and Community Health Sciences in the Louisiana State University Health Sciences Center's (LSUHSC) School of Public Health. Before joining the faculty at the LSUHSC School of Public Health, Dr. Jack served as Associate Dean of the School of Health Sciences and Interim Chair of the Department of Behavioral and Environmental Health at Jackson State University. Early in his career, he served as an Instructor in the Department of Health, Human Performance, and Leisure Studies at Howard University in Washington, D.C. He currently holds three adjunct appointments at the rank of Professor in the Global and Community Health Sciences, School of Public Health at Tulane University; the Department of Community Health and Preventive Medicine at Morehouse School of Medicine; and the Department of Public Health Sciences at Xavier University of Louisiana.

In addition, Dr. Jack worked at CDC for more than 14 years, serving as a Senior Behavioral Scientist and Lead of the Applied Behavioral Research, Epidemiology, Surveillance, and Evaluation Team in the Divisions of Diabetes Translation and Cancer Prevention and Control. He has published over 90 peer-reviewed manuscripts and/or book chapters. Dr. Jack has published three books, among which include the second edition of an edited volume entitled, "Diabetes in Black America: Clinical and Public Health Solutions to A National Crisis". His areas of research expertise include sociocultural aspects of disease management; family- and community-based research; men's and minority health; program evaluation; and psychosocial aspects of managing diabetes. He completed his undergraduate training in Community Health Education with a concentration in Psychology and Biology at Virginia State University and his Master's and Doctor of Philosophy degrees in Health Education at The Pennsylvania State University.

THURSDAY, APRIL 21, 2016

Event Time	Topic	Room Location
7:30 – 9:00 AM	Registration and Breakfast	<i>Lobby</i>
POSTER SESSION AND PANEL DISCUSSION		
8:00 – 9:30 AM	Poster Session: Review Research Posters and Discuss with Presenters	<i>Heritage II</i>
8:00 – 9:30 AM	Research Presentation and Panel Discussion: Minority Recruitment to Clinical Trials: Perspectives of Professional Stakeholders, Patient Navigators, and Patients	<i>Centennial I</i>
OPENING REMARKS		
9:30 – 9:40 AM	<p>Mona Fouad, MD, MPH Senior Associate Dean for Diversity and Inclusion, UAB School of Medicine Director and Professor, Division of Preventive Medicine Director, UAB Minority Health & Health Disparities Research Center</p> <p>Regina Benjamin, MD, MBA Founder and CEO, BayouClinic 18th U.S. Surgeon General</p>	<i>Heritage I</i>
BREAKOUT SESSION		
9:45 – 11:15 AM	<p>Gulf States Health Policy Center (TCC) - Health Policy Research Moderator: Maria Pisu, PhD Associate Professor, UAB School of Medicine, Preventive Medicine</p>	<i>Heritage I</i>
1	<p>Candace Forbes Bright, PhD Associate Scientist, The University of Southern Mississippi, Department of Political Science, International Development, and International Affairs</p>	An Ecological Systems Theory Explanation of Differences in Disaster Resilience and Recovery
2	<p>Mirjam-Colette Kempf, PhD, MPH Associate Professor, UAB School of Nursing, Nursing, Family, Communications, and Health Systems</p>	Opt-Out HIV Testing Guidelines and Barriers of Implementation in Alabama
3	<p>Jerome R. Kolbo, PhD Professor, The University of Southern Mississippi, College of Health</p>	Policies and Practices Affecting Adolescent Sexual Health in Mississippi
4	<p>Victoria Walker, MPH Targeted Program Coordinator, Mississippi State Department of Health, Office of Health Disparity Elimination</p>	Practical Applications of a Community Training on Public Health and Public Health Research
9:45 – 11:15 AM	<p>Basic and Clinical Science Moderator: David Chaplin, MD, PhD Professor, UAB School of Medicine Microbiology and Medicine/Pulmonary, Allergy, and Critical Care</p>	<i>Arlington</i>
1	<p>Shweta Tripathi, PhD Assistant Professor, Tuskegee University, Biology</p>	Quadruple Negative Breast Cancer (QNBC) Is More Prevalent in African American Women with an Enriched Immune Signature
2	<p>Tyler S. Wahl, MD AHRQ T32 Post-Doctoral Fellow, UAB School of Medicine General Surgery</p>	Enhanced Recovery After Surgery Reduces Disparities in Length of Stay for Colorectal Patients
3	<p>Indrajit Chowdhury, PhD, MS Assistant Professor, Morehouse School of Medicine Obstetrics and Gynecology</p>	Curcumin Attenuates Proangiogenic and Pro-Inflammatory Chemokines and Cytokines in Eutopic Endometrial Stromal Cells Derived from Women with and without Endometriosis
4	<p>Patrice L. Capers, PhD, MSCR MERIT Postdoctoral Scholar, UAB School of Public Health Office of Energetics</p>	Visual Representation of Body Shape in Women: Clinical Considerations
5	<p>Suguna Badiga, PhD Research Associate, UAB School of Health Professions Nutrition Sciences</p>	Racial Disparities in Overall Survival for Cervical Adenocarcinoma Treated by Surgery

THURSDAY, APRIL 21, 2016

Event Time	Topic	Room Location
9:45 – 11:15 AM	Epidemiology and Outcomes Research I Moderator: Ed Partridge, MD Director of UAB Comprehensive Cancer Center Professor, UAB School of Medicine, Obstetrics/Gynecology	Centennial I
1	George Howard, DrPH Professor, UAB School of Public Health, Biostatistics	Disparities in the Incidence of Cardiovascular Risk Factors in Black and White Adults
2	Virginia Howard, PhD Professor, UAB School of Public Health, Epidemiology	Characteristics Associated with Assessing Stroke Patients for Rehabilitation During Acute Stroke Hospitalization: Findings from the National REGARDS Study
3	Alexander Lo, MD, PhD Assistant Professor, UAB School of Medicine, Emergency Medicine	Racial Disparities in Hospitalization of Older Adults with Heart Failure in the Emergency Department
4	Justin Blackburn, PhD, MPH Assistant Professor, UAB School of Public Health, Health Care Organization and Policy	African Americans Are Less Likely to Be Adherent to Statins after Ischemic Stroke: An Analysis of Medicare Beneficiaries Following Hospital Discharge
5	Ricardo A. Franco, MD Assistant Professor, UAB School of Medicine, Infectious Diseases	Racial and Geographic Disparities in Hepatocellular Carcinoma Outcomes
9:45 – 11:15 AM	Epidemiology and Outcomes Research II Moderator: Linda Moneyham, PhD, RN, FAAN Professor and Senior Associate Dean for Academic Affairs, UAB School of Nursing	University
1	Bradford Jackson, PhD Instructor, UAB School of Medicine, Preventive Medicine	Disparities in Chronic Medical Conditions in the Mid-South: A Socio-Demographic Approach
2	Giyeon Kim, PhD Associate Professor, University of Alabama Alabama Research Institute on Aging/Department of Psychology	Unequal Burden of Psychiatric Disorders: Geographic Disparities in Unmet Need for Mental Health Care among Racially/Ethnically Diverse Adults with Psychiatric Disorders
3	Beverly Rosa Williams, PhD Associate Professor, UAB School of Medicine, Geriatrics, Gerontology, and Palliative Care	Racial Differences in Processes of Care at End of Life in VA Medical Centers: Planned Secondary Analysis of Data from the BEACON Trial
4	George Howard, DrPH Professor, UAB School of Public Health, Biostatistics	Differences in the Role of Black Race and Stroke Risk Factors for First vs. Recurrent Stroke
5	Virginia Howard, PhD Professor, UAB School of Public Health, Epidemiology	Black-White Differences in the Association of Neighborhood Socioeconomic Status with AHA's Life's Simple 7: The REGARDS Study
9:45 – 11:15 AM	Social/Behavioral Science and Community-Based Research Moderator: Isabel Scarinci, PhD, MPH Professor, UAB School of Medicine, Preventive Medicine Associate Director for Globalization and Cancer, UAB Comprehensive Cancer Center	Centennial II
1	Robert Collins, PhD Professor of Urban Studies and Public Policy Dillard University, School of Social Sciences	Segregation and the Disparities in the Built Environment
2	Loretta Lee, PhD, MSN Assistant Professor, UAB School of Nursing	Challenges to Healthy Eating Practices: A Qualitative Study of Non-Hispanic Black Men Living with Diabetes
3	Robin Lanzi, PhD, MPH CFAR Behavioral and Community Science Co-Director UAB School of Public Health, Health Behavior	Engaging Adolescents in the Development of an Interactive Sexual Health Mobile-Based Game Designed to Promote Healthy Decisions
4	Magdalena Szaflarski, PhD Assistant Professor, UAB College of Arts and Humanities, Sociology	Drug Use, Abuse, and Dependence in Immigrant and Racial-Ethnic Minority Populations
5	Susan Davies, PhD Associate Professor, UAB School of Public Health, Health Behavior	Applying Positive Deviance for HIV Prevention in the African American Community

THURSDAY, APRIL 21, 2016

Event Time	Topic	Room Location
PLENARY SESSION I		
11:30 – 12:30 PM	Vision for NIMHD for Addressing Health Disparities Eliseo J. Pérez-Stable, MD Director, National Institute on Minority Health and Health Disparities National Institutes of Health	<i>Heritage I</i>
LUNCH AND AWARDS		
12:30 – 1:30 PM	LUNCH BUFFET OPEN	<i>Lobby</i>
1:00 – 1:30 PM	Mentoring Awards	<i>Heritage I</i>
PLENARY SESSION II		
1:45 – 2:45 PM	Health Policy to Eliminate Health Disparities Leonard Jack, Jr., PhD, MSc Director, Division of Community Health National Center for Chronic Disease Prevention and Health Promotion Centers for Disease Control and Prevention	<i>Heritage I</i>
COMMUNITY PARTNERS WORKSHOPS		
3:00 – 4:30 PM	CBPR: Building Successful Community and Academic Partnerships Tanya Funchess, DHA, MPH, MSM Director, Health Disparity Elimination, Mississippi State Department of Health Joanice Thompson Associate Director for Community Outreach, UAB Minority Health and Health Disparities Research Center	<i>Centennial II</i>
3:00 – 4:30 PM	Don't Be Afraid of Social Media Susan Driggers Director of Marketing and Communications, UAB Minority Health and Health Disparities Research Center Maria C. Norena Associate Director for Strategy and Innovation, UAB Minority Health and Health Disparities Research Center Yui-Mei Schoenberger, PhD, MPH Assistant Professor, UAB School of Medicine, Preventive Medicine	<i>University</i>
3:00 – 4:30 PM	Achieving Your Policy End Game Jammie M. Hopkins, DrPH, MS Project Director, Transdisciplinary Collaborative Center (TCC) for Health Disparities Research, Morehouse School of Medicine Megan Douglas, JD Associate Director of Health Information Technology (HIT) Policy National Center for Primary Care, Morehouse School of Medicine	<i>Centennial I</i>
4:30 – 5:00 PM	BREAK	
CLOSING		
5:00 – 7:00 PM	Jazz Reception Hosted by Gulf States Health Policy Center	<i>Heritage I</i>



**MID-SOUTH TRANSDISCIPLINARY
COLLABORATIVE CENTER FOR
HEALTH DISPARITIES RESEARCH**

Community Partners and Collaborators

The Mid-South Transdisciplinary Collaborative Center for Health Disparities Research partners with community organizations and agencies to form collaborative relationships to address the social determinants of health as they relate to obesity and related chronic diseases in the community. As a part of this concerted effort, programs and interventions are developed and implemented by community organizations in Alabama, Mississippi, Louisiana, Arkansas, Tennessee and Kentucky. These partnerships foster community capacity building while widening the impact of the Mid-South TCC both regionally and nationally.

The Mid-South TCC would like to express gratitude to the following community organizations for their continued dedicated partnership in addressing health disparities in the mid-south region.

ALABAMA

Birmingham City Council – Councilor William Parker District 4
Birmingham Easonian Baptist Bible College
Birmingham Housing Authority
Birmingham Park Place
Birmingham Parks and Recreation Center/Fountain Heights
Birmingham Urban League
Black People Run, Bike and Swim
Community Foundation of Greater Birmingham
Deep South Network for Cancer Control
East Lake Market
Fountain Heights Neighborhood Association
Greater Shiloh Baptist Church
Hayes K-8 School
Health and Wellness Education Center of Livingston
Independent Presbyterian Church
Jefferson County Committee for Economic Opportunity (JCCEO)
JCCEO Head Start
Jefferson County Department of Health
Jefferson County Health Action Partnership
Kingston Community Coalition
Kingston Neighborhood Association
More Than Conquerors Faith Church
New Beginning Christian Ministry

Norwood Resource Center
P.E.E.R Inc.
Tuggle Elementary School
United Way of Central Alabama
West End Public Library

ARKANSAS

Arkansas Coalition for Obesity Prevention
Arkansas Municipal League
Growing Healthy Communities
Hometown Health Coalitions
The Arkansas Hunger Relief Alliance

KENTUCKY

Kentucky Department for Public Health, Office of Health Equity
Lane Lincoln Christian Methodist Episcopal Church
Lincoln Trail District Health Department
Sign of Dove Ministries

LOUISIANA

Bethany United Methodist Church
Cooking Matters, Second Harvest Food Bank
Daughters of Charity Foundation

Daughters of Charity Services of New Orleans
Dillard University Office of Community Relations
Edgewood Park Neighborhood Association
Fairmont Park Neighborhood Association
Garden Neighborhood Association
First Grace United Methodist Church
Fit NOLA, City of New Orleans Health Department
Fresh Central
Gentilly Heights East Neighborhood Association
Healthy Start New Orleans, City of New Orleans Health Department
Historic St. James A.M.E. Church
Hollygrove Market and Farm
Holy Cross Lutheran Church
Indian Springs Farmers' Cooperative, Southern Federation of Cooperatives
Louisiana Public Health Institute
Lower Ninth Ward Senior Citizens Center
New Hope Baptist Church
Paris Oaks Neighborhood Association
Pentecost Baptist Church
Pilotland Neighborhood Association
Pontchartrain Park Neighborhood Association
Progressive Baptist Church
Rapides Foundation
Sankofa Community Development Corporation
Southeast Louisiana Veterans Health Care System
Sugar Hill Neighborhood Association
Ugly Mug Marketing
Union Bethel A.M.E. Church
Virgil Park Neighborhood Association

MISSISSIPPI

Blackburn Middle School
Chinese Christian Church of Greater Jackson
City of Jackson AmeriCorps Program
Governor Phil Bryant's Healthy Teens for a Better Mississippi CHA Program
Grace Place, Homeless Ministry
Innovative Behavioral Services, Inc.

Jackson Heart Study Community Outreach Center
Jackson Public School District
Jackson Revival Center Church
Johnston Chapel
Mayor Tony Yarber's Task Force Family Boot Camp for Fitness
Meridian Community College
Midtown Health
Millsaps College One Campus, One Community
Missionary Baptist Churches of Mississippi
Mississippi Action for Community Education
Mississippi Methodist Conference
Mississippi Public Broadcasting
Mississippi State Department of Health, Mississippi Delta Health Collaborative
Mississippi University for Women
Mississippi Valley State University Mini Med School Program
Myrlie Evers-Williams Institute for the Elimination of Health Disparities
New Horizon Church
Powell Middle School
Rebel Well Employee Health Program
Rosa Scott Middle School
Selby and Richard McRae Foundation
Spectrum Employment
Student National Medical Association
Tougaloo College, Jackson Heart Study Undergraduate Training Center
University of Mississippi
University of Mississippi Medical Center
William Carey University School of Osteopathic Medicine

TENNESSEE

American Diabetes Association
Cigna Healthcare
Matthew Walker Comprehensive Health Center
McGruder Family Resource Center
Meharry Medical College
Mt. Zion Baptist Church
Nashville Food Project
Nashville General Hospital at Meharry



Coalition Members

The Gulf States Health Policy Coalition unites community members, partner organizations, and service providers to collaborate, strengthen our collective voice, and build capacity for health policy research impact and improved health outcomes. Members meet monthly in three locations (Bayou La Batre, AL; Birmingham, AL; Hattiesburg, MS) to address a range of health policy issues, including financial literacy, education, active transportation, school wellness, health literacy, maternal and infant care, and healthy foods, among others.

Thank You: The Gulf States Health Policy Center would like to thank the following coalition member organizations for their commitment to improving health and empowering communities in the Gulf States Region.

BAYOU LA BATRE (MOBILE COUNTY) AREA:

A Servant's Love, Inc.
AIDS Alabama South
Alabama Department of Mental Health
Alegna Community Development Corporation
The Alliance Institute
AltaPointe Health Systems
American Cancer Society
American Diabetes Association
Baheth Research and Development Laboratories, Ltd.
Bethesda Cares
Boat People SOS
The Common Touch, Inc.
Conservation Alabama Foundation
E3 Solutions
Enroll Alabama
EPA – Gulf of Mexico Program Office
Hartzog Consulting, LLC
Jaya
Me & My Health
Mobile Area Interfaith Conference
Mobile Bay Black Nurses Association
Mobile County Health Department
Mobile County Public Schools
Ms. Elizabeth's Tutorial Services
Prichard Housing Authority
Providence Hospital Outreach
SMG & Associates Public Affairs
South Alabama Center for Fair Housing
South Alabama Regional Planning Commission

University of South Alabama
Biomedical Library
Center for Healthy Communities
College of Nursing
Department of Sociology, Anthropology, and Social Work
Gulf Coast Behavioral Health and Resiliency Center
Mitchell Cancer Institute
Student-Run Free Clinic
Virginia College

BIRMINGHAM AREA:

AIDS Alabama, Inc.
Alabama Cooperative Extension System
The Bethesda Life Center
Birmingham Business Alliance
Birmingham City Council
Birmingham Education Foundation
Birmingham–Jefferson County Transit Authority
Birmingham Public Library – Pratt City Branch Library
Birmingham Society for Human Resource Management
Black People Run Bike And Swim
Center for Healthy Schools – West Chester University
City of Birmingham – Department of Planning, Engineering & Permits
Community Foundation of Greater Birmingham
Conservation Alabama
The Dannon Project
Fairfield Housing Authority
Housing Authority of the Birmingham District
Jefferson County Commission

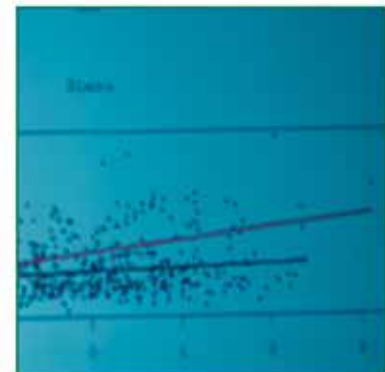
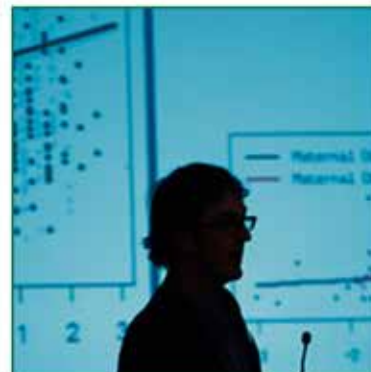
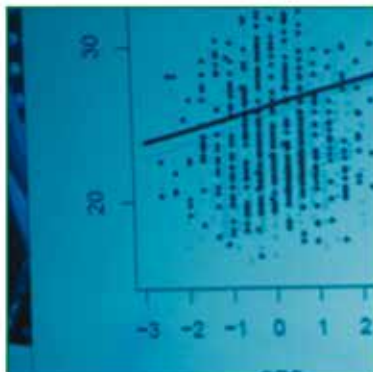
Jefferson County Department of Health
Mineral District Medical Society
Norwood Resource Center
New Rising Star Missionary Baptist Church
Payne Chapel A.M.E. Church
Regional Planning Commission of Greater Birmingham
Six Pratt Community and Economic Development Corporation, Inc.
Sunny Slaughter Consulting, LLC
UAB Comprehensive Cancer Center – Deep South Network for Cancer Control
UAB – Sustainable Smart Cities Research Center
United Way of Central Alabama
YMCA of Greater Birmingham

HATTIESBURG AREA:

Blue Cross & Blue Shield of Mississippi Foundation – Health is Golden Campaign
City of Hattiesburg

Delta Sigma Theta Sorority, Inc.
E3 Health Initiative
Hattiesburg Area Habitat for Humanity
Health Help Mississippi
Le Leche League of Hattiesburg
Mississippi Public Health Association
Mississippi Rural Health Association
Mississippi State Department of Health – Public Health District 8
Mississippi State Department of Health – Office of Health Disparities
Mississippi State University Extension Service
Pine Belt Mental Healthcare Resources
South Mississippi Children’s Center
Southeast Mississippi Rural Health Initiative
The University of Southern Mississippi
United Way of Southeast Mississippi
WellWoven, LLC
William Carey University

The Science of Health Disparities: From Discovery to Delivery



Abstracts

11th Annual UAB Health Disparities Research Symposium

April 21, 2016

Birmingham, Alabama

ABSTRACTS

11th Annual Health Disparities Research Symposium 2016
 April 21, 2016

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Abisoye-Ogunniyan, Abisola, MS**Poster 1**

UAB Arts and Sciences, Department of Biology and Cancer Research Center

Immunomodulatory Effect of RP182 on Pancreatic Cancer Mouse Model*Abisola Abisoye-Ogunniyan, MS; Udo Rudloff, MD, PhD; Jesse Jaynes PhD; Clayton Yates, PhD*

PURPOSE: African Americans (AA) have a 50% to 90% higher incidence rate of pancreatic cancer than other racial groups. AA patients also have a very poor prognosis even when detected at the early stages and pancreatic cancer is one of the main causes of cancer-related deaths in the United States. Current treatments for pancreatic cancer including but not limited to surgery, radiation therapy, chemotherapy (e.g. Gemcitabine), are marginal and have not improved the prognosis of this disease. Thus, there is an urgent need for novel therapeutic techniques to improve patient health and survival rate. Recently, reprogramming of the immune system, through the use of immunotherapeutic agents in other cancers have been shown to be a promising adjunct therapy for the treatment of cancers. Tumor associated macrophages (TAMs), are linked with very poor prognosis in breast cancer; and African American patients have been shown to have a higher number of TAMs compared to Caucasians. Therefore, we developed a TAM specific inhibitor, RP182, and tested its immunomodulatory activity on the *p16lnk4a* transgenic pancreatic cancer mouse model.

METHODS: The half-maximal effective concentration (EC50) of RP182 was determined by flow cytometry using bone marrow derived macrophages, RAW 264.7 macrophages and mouse pancreatic cancer cells. Four treatment groups (control, RP182 only, Gemcitabine only and RP182 + Gemcitabine) were used on *p16lnk4a* mice for survival rate studies; tumor volume was determined by ultra sound scan. Tumor digests were treated with biotinylated RP182 and multi-stained for immune markers.

RESULTS: An average EC50 of about 4 μ M was obtained. RP182 showed higher binding activity to TAM marker, CD206, which resulted in the cytotoxic killing of TAMs. P16 pancreatic cancer mice treated with a combination of RP182 and Gemcitabine had a higher survival rate of about 30 days more as compared to those treated with Gemcitabine only.

DISCUSSION/CONCLUSIONS: RP182 has shown higher response in binding on CD206 and a cytotoxic effect on TAMs resulting in increased survival rate in combination with Gemcitabine in pancreatic cancer mouse model. Further studies are been carried out and RP182 is a promising prospect as an adjunct therapy for pancreatic cancers in AA patients.

Ahmed, Md Shakir U., MS**Poster 2**

Tuskegee University Integrative Biosciences

Breast Cancer Exosomes Shows Kaiso Dependent Cellular Proliferation and Movement*Md Shakir U Ahmed, MS; Shweta Tripathi; William E Grizzle; Clayton Yates*

PURPOSE: Breast cancer is the most frequent tumor in women, afflicting African American (AA) females to a greater degree than Caucasians (CAs). Recently, we and others have found that AA patients show increased expression of markers related to the epithelial to mesenchymal transition (EMT) and that this is associated with a relapse of breast tumors from front-line therapy. Furthermore, Kaiso expression is elevated in AA patients relative to CA patients, and its expression correlates with tumor recurrence and metastasis. However, we have not determined cellular communication pathways that underline these observances. Exosomes are small (50-100-nm) extracellular vesicles that are released from normal and tumor cells. They are now considered important modulators of cellular behavior, including the immune response, angiogenesis, invasiveness, evasion of immune surveillance, and metastasis. However, the role of Kaiso on the biological function of breast cancer exosomes has not been investigated.

METHODS: Exosomes were isolated by ultracentrifugation method and characterized by antibody array. We performed exosome internalization assay, cell proliferation assay and migration assay. Exosome proteomics was performed by LC-MS/MS and analyzed quantitatively by DAVID bioinformatics resources.

RESULTS: Isolated exosomes were effectively internalized by MCF7 cells. MCF7 cells treated with exosomes of Kaiso-knock-downed MDA-MB-231 cells (sh-Kaiso) showed a decreased proliferation as compared to exosomes of Kaiso-scrambled MDA-MB-231 cells (sh-Scr). We further observed that treatment of MCF7 cells with sh-Kaiso exosomes decreased cell migration when compared to sh-Scr. To determine the proteins responsible for this observation, we performed exosome proteomics profiling. Exosomes released from sh-Kaiso compared to sh-Scr cells showed differential enrichment of protein expression. In sh-Kaiso exosomes, 36 proteins were down-regulated and most of these proteins are involved in cell invasion and metastasis; whereas 172 proteins were up-regulated in sh-Kaiso of which most of them are involved in protein folding, protein complex assembly, biogenesis and repair.

CONCLUSION: Our findings demonstrate that Kaiso plays an important role in the content of exosome cargo, which in turn has an effect promoting cell growth and migration of breast cancer cells. We suggest that Kaiso has defined role in limiting important cellular information in breast cancer exosome cargo.

Ainsworth, Matthew C., MPH

Poster 3

UAB School of Public Health, Department of Health Behavior

Rationale, Design, and Baseline Findings from HIPP: A Randomized Controlled Trial Testing A Home-Based, Individually-Tailored Physical Activity Print Intervention For African American Women In The Deep South

Matthew C. Ainsworth, MPH; Dori Pekmezi, PhD; Cole Ainsworth, MPH; Rodney Joseph, PhD; Molly Bray, PhD; Elizabeth Kvale, MD; Shiney Isaac, MPH; Renee Desmond, DVM, PhD; Karen Meneses, PhD, RN, FAAN; Bess Marcus, PhD; Wendy Demark-Wahnefried, PhD, RD

African American women report high rates of physical inactivity and related health disparities. Thus, formative research was conducted to assess physical activity barriers and intervention preferences among African American women in the Deep South. The resulting 12-month Home-based, Individually-tailored Physical activity Print (HIPP) intervention is currently being tested in an RCT with a wellness contact control condition among 84 post-menopausal African American women from the Deep South. This paper will explore the rationale, design and baseline findings of the HIPP trial. The average age is 57 (SD= 4.7) and BMI is 32.1 kg/m² (SD=5.16). More than half the subjects had a college education and 45.2% reported an annual household income above \$50,000. Participants reported an average of 41.5 minutes/week (SD=49.7) of moderate intensity physical activity at baseline, and 94.1% were in the contemplation or preparation stages of readiness for physical activity at baseline. While social support for exercise from friends and family was low, baseline levels of self-efficacy, cognitive and behavioral processes of change, decisional balance, outcome expectations, and enjoyment appear promising. Baseline data indicated high rates of obesity and low levels of physical activity, providing strong evidence for a need for intervention. Moreover, scores on psychosocial measures suggested that such efforts may be well received. This line of research in technology-based approaches for promoting physical activity in African American women in the Deep South has great potential to address health disparities and impact public health.

Arrieta, Martha, MD, MPH, PhD

Poster 4

University of South Alabama School of Medicine, Internal Medicine

Tracking Progress Towards Health Equity: A Sentinel Surveillance Approach

Martha Arrieta, MD, MPH, PhD; Naima Wells, BS; Andrea Hudson M Ed; Kristen Van Buren, MPH, CPH; Marcellus Hudson; Lynette Parker, MA; Michael Degen, MA; Errol Crook, MD

PURPOSE: With efforts enacted to promote health equality, it is essential to monitor whether expected outcomes are realized. We hypothesized that it was possible to define a set of sentinel surveillance sites, tools and procedures to measure the progression of health equality among minority residents of a health disparate area.

METHODS: In consultation with community leaders, "sentinel sites" were identified whereby representative groups of the population congregate. Short survey tools were developed -congruent to the culture and literacy level of the population- to elicit information on health status, health care access, chronic disease management, health knowledge, and preventive health behaviors. Processes to approach potential participants, mostly at open public spaces, were defined. We involved community members as field interviewers. They also participated in data entry and data management.

RESULTS: Over two years, we collected 7,020 surveys at 41 sentinel sites. Sites were relatively stable as to the demographic composition of the samples gathered at successive visits and from year to year. Data gathered in 2013 established a baseline of population health indicators. Data gathered in 2014 focused on access to care changes due to implementation of the Affordable Care Act. Successive waves of data collection will track changes in all health indicators.

DISCUSSION: Feasibility of a sentinel surveillance system focused on a health disparate population was verified. Representativeness of the data will be evaluated through (a) longitudinal follow up of a random sample of residents, and (b) tracking of hospitalizations for ambulatory care sensitive conditions among area residents. Sentinel Surveillance may prove a practical methodology to monitor changes in health status among the population sub-groups most affected by health disparities.

The project described was supported by Award Number P20MD002314 from the National Center on Minority Health and Health Disparities. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Center on Minority Health and Health Disparities or the National Institutes of Health.

Aydogan, Serra S., Graduate Student

Poster 5

UAB College of Art and Science, Sociology

Parental Acculturation and Youth Mental Health

Serra S. Aydogan

PURPOSE: This study, based on Bourdieu's theory of practices, investigates whether or not parental acculturation is associated with depression levels among youth in US-based immigrant families. Previous research has shown that even though individual acculturation is negatively correlated with youths' good mental health, parental acculturation is associated with higher levels of mental health among youth. This study elaborates on these prior findings by using a large national sample of immigrant children and considering the mediating role of social ties and social support.

METHODS: Data for the study are derived from the Children of Immigrant Longitudinal Study to examine the relationship between parental acculturation and youth depression. Acculturation is assessed with English language proficiency. Mental health is measured by using Child's Depressive Symptom Level-Depress Scale (CES-D) endorsements for depression. Parental social ties and social support are based on standardized measures of socialization and racial/ethnic social preference. Several hypotheses regarding the associations among parental English language proficiency, parental social ties/social support and youth depression levels will be tested by using multivariable linear regression.

FINDINGS: According to descriptive statistic for the study variables, parents reported average English language proficiency (mean=2.82, SD=.97, with a possible range of scores 1 to 4). They also reported significant preference to the way of American life (mean= 3.37, SD= 1.04, with a possible range of scores 1 to 4). The adolescents reported a moderate amount of depression (mean= 1.66, SD= 0.64, with a possible range of scores 1 to 4). The further analyses are under way to examine if parental social ties/social support has a positive effect on both youth mental health outcomes and that parental acculturation, and parental acculturation has a positive effect on youth mental health outcomes.

DISCUSSION/CONCLUSION: The discussion will focus the study findings in the light of the existing literature. Bourdieu's theory underlies the reproduction of the social structure results from the habitus of individuals and social capital is treaded in immigration proses. Bourdieu's theory will be used to interpret and understand the findings.

Badiga, Suguna, PhD

Arlington

UAB School of Health Professions, Nutrition Sciences

Racial Disparities in Overall Survival for Cervical Adenocarcinoma Treated by Surgery

Suguna Badiga, PhD; Michelle Chambers, MS; Janaka Weragoda, MD; Walter Bell, MD; Sejong Bae; Warner Huh, MD; Roland Matthews, MD; Chandrika Piyathilake, PhD

PURPOSE: Cervical cancer (CC) account for 7.5% of all female cancer deaths worldwide and is the third most common genital tract malignancy in the US. Even though lower 5-year survival rates for African American (AA) diagnosed with CC compared to Caucasian American (CA) women have been documented by some studies, the results have been inconsistent. This inconsistency could be due to combining patients with different histological subtypes of CC as well as different stages of the disease and treatments provided (surgery alone/surgery along with radiation/chemotherapy/both). Therefore, the purpose of our study was to address these limitations.

METHODS: The study population consisted of CC cases diagnosed and treated at the University of Alabama at Birmingham (Birmingham, AL) and Grady Hospitals (Atlanta, Georgia) from 1985-2010 (n=1177). Out of 1177 patients, 864 women (150 Adenocarcinoma [AC] and 714 Squamous cell carcinoma [SCC]) were treated with surgery alone while 313 patients (46 ACs and 267 SCCs) were surgically treated followed by chemotherapy/radiation/both. Overall survival analysis was conducted adjusting for age, year and place of treatments, and stage of the disease.

RESULTS: We observed that AA women diagnosed with AC and treated by surgery alone were significantly more likely to die earlier compared to CA women who were diagnosed with AC and given the same treatment (HR=4.72; P=0.03). We did not observe a difference of this nature among women diagnosed with SCC and treated by surgery alone (HR=1.22; P=0.19). We also observed that the overall survival did not improve when AA women diagnosed with AC were treated with surgery followed by radiation/chemotherapy/both (HR=2.1; P=0.26).

CONCLUSIONS: To our knowledge, this is the first study to document racial differences in survival by histological subtypes of CCs and by treatment after adjusting for covariates stated above. These results demonstrated that traditional adjunct treatments along with surgery are unlikely to improve survival of AA women who develop cervical ACs. CC histological subtype-specific molecular profiles may explain our observations. As we strive to personalize cancer therapy, it is imperative that we understand these molecular differences so that we could apply this knowledge to develop targeted therapies that may overcome racial disparities in CC outcomes.

UAB School of Medicine, Genetics

African American POLG1 Variants Disrupt Mitochondrial Function and Confer Aggressive Tumorigenic Properties

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

PURPOSE: Populations based studies have provided insights that the ethnic differences in cancer incidence and mortality are the results of genetic risk factor. Genetic variants contribute to large fraction of the diversity observed among different ethnic groups. Genetic variants could give better insights in genetic predisposition and susceptibility from one population to another. We provided the first evidence that mtDNA is reduced in normal tissue of African American men when compared to Caucasian American men. DNA polymerase γ (POLG1) which is also epigenetically regulated is one of the most important DNA polymerase known to function in human mitochondria and performs critical function of mtDNA replication and repair. POLG1 protein consists of exonuclease, linker and polymerase domain, each with distinct functions. Mutations in exonuclease domain leads to erroneous proofreading and is responsible for increased mutations in mtDNA whereas mutations in polymerase domain leads to erroneous replication and hence depletion in mtDNA. Through our present study we dissected the mechanism underlying the difference in mtDNA content among the African American and Caucasian American population.

METHODS: We conducted comprehensive race based bioinformatics analysis of POLG1 gene in more than 33,000 European-Americans and 5,000 African-Americans and discovered seven unique African American and five unique Caucasian American germline mutations. To study functional contribution of these unique germline mutations in tumor progression, we generated these prevalent mutations in the evolutionary conserved regions of exonuclease and polymerase domains by site directed mutagenesis and performed functional and tumorigenic analysis.

RESULTS: We identified striking differences in POLG1 sequence between the two populations. Interestingly certain genetic variants were unique in one population with complete absence of mutant allele in another population. In addition, mutated allele frequency for the common mutations also projects relative differences between the two populations. When expressed in cell lines marked reduction in mtDNA content and mitochondrial function led to concomitant increased matrigel invasion and colony formation in all unique germline variants discovered in African American population.

DISCUSSION/CONCLUSION: We demonstrate that POLG1 unique genetic variants identified in African American population contribute to disruption of mitochondrial function likely rendering the African American population increased predisposition to cancer.

UAB School of Public Health, Health Care Organization & Policy

African Americans are Less Likely to be Adherent to Statins after Ischemic Stroke: An Analysis of Medicare Beneficiaries Following Hospital Discharge

Karen Albright DO, MPH; Hong Zhao, PhD; Justin Blackburn, PhD; Virginia Howard, PhD; George Howard, DrPH; Mark T. Beasley, PhD; Nita Limdi, PhD; Paul Muntner, PhD

INTRODUCTION: Statins have been shown to decrease cardiovascular disease morbidity and mortality. Although statins have proven efficacious in reducing the risk of recurrent stroke, little is known about adherence among older adults following ischemic stroke.

METHODS: We compiled a retrospective cohort of Caucasian and African-American Medicare beneficiaries in the 5% sample to estimate statin adherence among older adults initiating therapy following hospitalization for ischemic stroke in 2007 - 2011. To be included, beneficiaries were required to have 365 days of Medicare fee-for-service coverage with no claims for stroke-related events or statins prior to the index stroke event. The cohort was limited to beneficiaries with an initial Part D claim for a statin within 30 days plus at least 1 additional claim during follow-up. Adherence was determined by percent of days covered (PDC) for the 365 days following discharge home (time spent in rehabilitation or skilled nursing was excluded); non-adherence was defined as a PDC <80%. Relative risk of statin non-adherence was determined using modified Poisson regression.

RESULTS: Among 6,251 statin-naïve beneficiaries with stroke, 2,070 (33.1%) initiated statin therapy and were included in the analysis. Among them, 13.1% (n=271) were African American. African Americans were more likely than Caucasians to have a PDC <80%, 15.4% vs. 11.7%, respectively (Table 1). The racial disparity remained after adjusting for demographics, dual Medicare-Medicaid eligibility, and baseline comorbidities (adjusted RR 1.17, 95% CI 0.99-1.37).

CONCLUSIONS: African Americans may not be obtaining the recurrent stroke prevention therapy provided by statins, possibly contributing to the higher rate of recurrent stroke in this population.

Blackburn, Justin, PhD**Poster 7****UAB School of Public Health, Health Care Organization & Policy****Black-White Differences in the Lack of Caregivers as a Risk Factor for Long-Term Nursing Home Placement after Stroke***Justin Blackburn, PhD; Karen C. Albright; Virginia J. Howard; Monika M. Safford; Meredith L. Kilgore*

PURPOSE: The reliance on informal caregiving is more prevalent among blacks than whites. Furthermore, blacks have greater activity limitations following stroke but are more likely to be discharged home. While attitudes about caregiving may be one important factor, it remains unclear whether racial differences in social support predicts nursing home placement after stroke.

METHODS: A nested cohort study was conducted within the REasons for Geographic and Racial Disparities in Stroke (REGARDS) Study linked to Medicare claims. Baseline interviews were conducted between January 2003 and October 2007. Caregiver support was measured by asking, "If you had a serious illness or became disabled, do you have someone who would be able to provide care for you on an on-going basis?" Additional social support measures included marital status, living alone, and number of friends/relatives. Baseline covariates included demographics, income, and physical function score (SF-12). Diagnoses of ischemic stroke and cognitive conditions were derived from claims. Nursing home placement was determined using a validated claims algorithm for stays = 4 months. Risk of placement was estimated using Cox regression.

RESULTS: Among 30,239 participants, 578 Medicare beneficiaries (44% black) had inpatient claims for ischemic stroke from January 1, 2004-December 31, 2012 and were included. Mean follow-up was 124 weeks. Nursing home placement occurred for 85 beneficiaries (14.7%). Lacking a potential caregiver was reported by 78 beneficiaries (13.5%), of whom 19 (22.4%) entered nursing homes. Lacking a caregiver increased the risk of placement by 80% (hazard ratio [HR] 1.8, 95% confidence interval [CI] 1.1-3.2). Race-stratified models showed an increased risk of nursing home placement among whites (HR 2.3, 95% CI 1.1-4.9) but not blacks (HR 1.5, 95% CI 0.7-3.2). No other social support measures were statistically significant for either race.

DISCUSSION/CONCLUSIONS: REGARDS participants who lack a potential caregiver had the greatest risk of nursing home placement. This may affect whites more than blacks. Decisions to place family members into nursing homes may be based on different circumstances for whites and blacks. A better understanding of social support needs within racial communities can aid in the allocation and design of community-based long-term care supports and services following stroke.

Blejwas, Emily, MS**Poster 8****Gulf State Health Policy Center****Evaluating Community Forums as a Means to Inform Policy Action Planning***Emily Blejwas, MS; Danny Patterson; Donald Ponquinette; Frewin Osteen*

PURPOSE: To evaluate the efficacy of community forums as a means to inform policy action planning.

METHODS: When members of the Gulf States Health Policy Center (GS-HPC) Coalition began to define policy focus areas, they insisted these areas be "tested" with communities to ensure relevancy. In November-December 2015, GS-HPC held six community forums in Mobile County, AL on three policy areas in three locations: health literacy in Bayou La Batre; education in Mobile; and financial literacy in Prichard. In each location, a noon forum and an evening forum was offered. The forums were facilitated by the David Mathews Center for Civic Life. Evaluations were distributed to all participants.

RESULTS: The community forums were successful in attracting participants from various walks of life, generating constructive discussion around community needs, building collective motivation to improve the community, identifying assets and action opportunities, validating the Coalition's previous discussions, and surfacing issues previously unknown to the Coalition.

DISCUSSION/CONCLUSION: The forums revealed a tangible difference between what coalition members and community members identified as vital. Although the Coalition consists largely of professionals who serve Mobile County, and these service providers contributed valuable information to the policy process, they could not fully speak for the communities they serve. Community members presented - and gathered consensus around - several issues that coalition members had not identified. For example, coalition members had discussed at length the need for access to fresh fruits and vegetables. However, during the health literacy forums, community members cited a public garden in the Bayou where the produce had rotted on the vines because no one knew about it. The issue, they insisted, was not a lack of resources or a lack of access, but a lack of effective communication. Likewise, during the financial literacy forums, service providers cited several financial counseling services, but community members had no knowledge of them. The community forums highlighted the value of direct input from individuals whom policy work is intended to serve. Further, it underscored the importance of validating policy plans in the early stages of the planning process, as community input has the capacity to shift and shape the policy focus.

Bowen, Pamela G., PhD, CRNP, FNP-BC

Poster 9

UAB School of Nursing

Promoting Physical Activity among African Americans through Policy

Pamela G. Bowen, PhD, CRNP, FNP-BC

The American College of Sports Medicine's "Exercise is Medicine Initiative" expects healthcare providers (HCPs) to play an active and critical role in promoting regular physical activity to patients in order to prevent many chronic diseases. Disproportionately, African Americans (AAs) are inactive and physical inactivity results in approximately \$131 billion of healthcare costs. Because physical inactivity may cause negative emotional, social, and chronic health consequences, it is essential for HCPs to have physical activity discussions with all patients, especially vulnerable and AA patients. The utilization of healthcare visits provides more opportunities for HCPs to discuss physical activity as part of a patient's disease management/prevention and health promotion regimen. To date, most interventions designed to increase physical activity have been minimally successful. New approaches to increase physical activity are needed. Physical activity interventions delivered in the primary healthcare system that are endorsed and supported by administration may actually hold promise because it is well documented that patients want advice from their HCPs on physical activity. The goal of health policy research is to evaluate how and who influences policy development and implementation. Having policies to encourage HCP discussions to promote physical activity at each clinic encounter is favorable. The purpose of this study is to determine what policies are in place to support HCP discussions of physical activity and whether a policy level intervention can increase the frequency of those discussions.

METHODS: A pre-post design will be used to conduct this study at Cooper Green Mercy Health Services clinic in three phases: 1) Policy and Baseline Assessment, 2) Intervention Development and Implementation, and 3) Intervention Evaluation. Results are expected to yield quantitative data from descriptive statistics, qualitative data from HCP interviews, and any pre-post intervention changes in HCP and patient behaviors.

CONCLUSION: This study will help fill the gap in understanding whether HCPs initiate and promote physical activity discussions with their patients during clinic encounters. This strategy will allow physical activity discussions to remain in the forefront for HCPs and potentially increase patients' awareness to be regularly active, thereby, reducing the poor health consequences of physical inactivity.

Bright, Candace Forbes, PhD

Poster 10

The University of Southern Mississippi, International Development and International Affairs

Hattiesburg Area Health Coalition

Candace F. Bright, PhD; Emma Fontenot, MA; Ashley McKenzie-Skipper; Tanya Funchess, PhD; Eboni Edmonson, MSPH

PURPOSE: The Hattiesburg Area Health Coalition (HAHC), based in Hattiesburg, Mississippi, is one of three coalition chapters of the Gulf States Health Policy Center. The coalition began meeting in November 2014 and has 26 active members. The membership is diverse, representing local universities, the city, and the health department at the local and state level, non-profits, students, and community members. The coalition has two policy focus areas: workplace wellness and infant and maternal health.

METHODS: CBPR methods have been used to address community health issues. To identify the two focus areas, the coalition extensively reviewed health statistics, research addressing our community, and existing projects. They focused on two areas that could improve identified health gaps in the community. After identifying the focus areas, the coalition constructed policy scan instruments to assess the presence/absence of policies in the community relating to these two areas. HAHC has also partnered with the Mississippi State Department of Health (MSDH) Office of Health Disparities to implement a community class, the Community Research Fellows Training (CRFT). This sixteen-week course provides individuals with the information needed to be active consumers and partners in community health research.

RESULTS: The coalition has finalized the policy scan instruments and once approved by IRB, will begin to collect data in late spring. The worksite wellness instruments will be distributed to human resources (HR) directors. There are two instruments related to infant and maternal health—one will be distributed to medical offices and the other will be distributed to HR directors. The CRFT program has enrolled 27 students. These students are diverse in terms of race, age, community representation, education, and other aspects of background. The program will conclude on May 17, 2016.

DISCUSSION/CONCLUSIONS: The coalition has experienced success in terms of fostering collaborations and partnerships within the community. CRFT and several other community health-oriented projects have developed as the result of a partnership between HAHC and the MSDH. As the coalition advances its policy scan efforts, members will use the data to create a community action plan. Through these efforts, as well as training opportunities, HAHC is working to improve the health of the community.

Coalition supported by NIH-NIMHHD grant #U54MD008602 at Gulf States Health Policy Center, Bayou Clinic, Inc.

Bright, Candace Forbes, PhD**Heritage I****The University of Southern Mississippi, International Development and International Affairs****An Ecological Systems Theory Explanation of Differences in Disaster Resilience and Recovery***Candace F. Bright, PhD; Roma Hanks, PhD; Edward Sayre, PhD*

PURPOSE: The researchers use Ecological Systems Theory (EST) to assess the environmental systems interacting in resilience to and recovery from disasters. Disaster research demonstrates that resilience and recovery occur on many different individual and community levels and preliminary analysis of the survey data demonstrates differences in impact and recovery for different disasters, as well between sub-populations in each of the disaster communities. The researchers assess how each of the EST systems contain norms and rules that shape development to advance understanding of how these systems impact disaster resilience and recovery.

METHODS: The researchers use survey and interview data from individuals impacted by the BP Deepwater Horizon Oil Spill to compare the respondents' views of impact at the individual, microsystem, mesosystem, exosystem, and macrosystem and how this model looks different for sub-populations within the impacted MS and AL coastal communities. The BPOS impact is also compared to that of the Mississippi River flooding and the Tuscaloosa tornados to better explain the unique impact of oil spills. EST is used to compare models of the three disasters to understand how they each impact individuals and communities. Data collected from individuals affected by the disasters will be used to assess the behaviors and relationships with recovery that occur at each of the five levels of EST and how the extent to which the each level is impacted by the disaster is associated with one's impact and/or recovery.

RESULTS: Results are presented for each of the five realms of the EST model. The researchers assess socio-demographics to understand the individual level, social networks to understand the microsystem, community involvement to understand the mesosystem, organizations involved in recovery to understand the exosystem, culture and perceptions to understand the macrosystem, and take a longitudinal approach to capture the chronosystem.

DISCUSSION/CONCLUSIONS: The differences in the central realms, individual level and microsystem, are concluded to be principal to understanding the differences across the three disasters assessed. Survey results indicate the greatest impact among BP Oil Spill (BPOS) respondents, which coincides with differences in social network factors.

Research supported by NIH-NIMHHD grant #U54MD008602 at Gulf States Health Policy Center, Bayou Clinic, Inc.

Bui, Jacqueline, BSN**Poster 11****UAB School of Nursing****Cognitive Function and Resource Utilization among Rural African American and Caucasian Breast Cancer Survivors***Jacqueline Bui, BSN, RN; Timiya S. Nolan, MSN, CRNP; Jennifer Bail, BSN, RN; Leigh Ann Bray, MSN, RN, CNL; Lakesha Kinnerson, MPH, RHIA, CPHQ; Dheeraj Raju, MSIE, MS, PhD; Silvia Gisiger-Camata, MPH, RN; Karen Meneses, PhD, RN, FAAN*

PURPOSE: Breast cancer survivors (BCS) commonly report cognitive changes (CC), which can cause disruptions to daily life. Studies indicate 21-90% of BCS report CC, largely in memory and attention. In Alabama, support for CC is ranked as one of the greatest needs among BCS. However, data are predominately derived from urban Caucasians (CAU). Rural CAU and African American (AA) populations are underserved and understudied. The purpose of this paper is to describe/compare rural AA and CAU BCS's (1) cognitive function and (2) cognitive resource utilization.

METHODS: Two educational cognitive health programs consisting of breast health, healthy living, and brain exercises were delivered to rural BCS living in Greene and Marshall Counties of Alabama. Following each seminar, participants were asked to complete a 28-item Think Well (TW) Survey. The TW Survey consisted of sociodemographic items; four 5-point Likert scale (1=not at all to 5=extremely) items referencing the experience of CC (memory, ability to think, speed of problem solving, and ability to pay attention) and CC's interference with daily life; one select-all-that-apply item referenced utilization of resources. Data analysis was conducted with SPSS.

RESULTS: Of the 99 returned surveys, 28 (28%) were from BCS. AA and CAU (n=12; 16) were older BCS (mean age= 62 years [SD=11]; mean years of survivorship= 6 years [SD=5]), unmarried (AA 67%, CAU 20%), and employed (AA 8%, CAU 36%). Rural AA and CAU BCS respectively reported minimal to extreme changes after treatment: memory (90%; 93%), ability to think (82%; 100%), speed of problem solving (91%; 100%), and ability to pay attention (82%; 93%). Rural AA (67%) and CAU (94%) reported CC interfered with activities of daily living. Although BCS reported CC, many AA (25%) and CAU (38%) did not utilize resources.

DISCUSSION/CONCLUSIONS: Compared to rural AA BCS, rural CAU reported more CC but less resource utilization; CAU BCS also reported more CC interference with activities of daily living. Future considerations include development of family-inclusive and web-based CC resources for rural BCS.

Bulls, Hailey, MA

Poster 12

UAB College Arts & Humanities, Psychology

Depressive Symptoms and Sleep Efficiency Mediate Racial Differences In Endogenous Pain Facilitatory Processes

Hailey Bulls, MA; Mary K. Lynch, MA; Michael A. Owens, BS, BA; Ethan W. Gossett, BA; Sarah C. Terry, BA; Kate M. Wesson-Sides, BA; Megan E. Petrov, PhD; Burel R. Goodin, PhD

PURPOSE: Previous work conducted by our group revealed that older African Americans demonstrate significant hyperalgesia and augmented endogenous pain facilitation when compared to older non-Hispanic Whites. Psychological and behavioral factors that may help explain racial differences in the experience of pain among older adults remain largely unexplored. Thus, the current study sought to examine depressive symptoms and sleep efficiency as sequential mediators of racial differences in endogenous pain facilitatory processes.

METHODS: A total of 50 (26 African Americans and 24 non-Hispanic White) community-dwelling adults without chronic pain (mean age 50 years; range 22 to 77 years) initially completed the Center for Epidemiological Studies Depression Scale (CES-D) prior to seven consecutive nights of sleep monitoring with actigraphy in the home environment. Participants then returned to the laboratory for assessment of endogenous pain facilitation using a mechanical temporal summation protocol. Temporal summation was examined at both the dorsal hand and ipsilateral trapezius using fine pressure, results of which were then averaged across sites for an overall measure of mechanical temporal summation.

RESULTS: Results supported the predicted three-path mediation model (95% Confidence Interval: -2.325 to -0.086). African American race was associated with greater depressive symptoms ($t = -2.08, p = .043$), which in turn was associated with poorer sleep efficiency ($t = -2.55, p = .014$), which was subsequently associated with augmented temporal summation of mechanical pain ($t = -4.11, p < .001$). Sex, education level, age, and risk for obstructive sleep apnea (assessed using the STOP-BANG questionnaire) were included in the analyses as covariates.

DISCUSSION/CONCLUSION: This study lends support for the negative impact of depressive symptoms on sleep efficiency, and suggests that both sequentially mediate racial differences in endogenous pain facilitation. Additionally, it provides a foundation for incorporation of interventions intended to reduce depressive symptoms and improve sleep efficiency in those at risk for chronic pain.

Cahill, Laura, MPH

Poster 13

LSU School of Public Health, Behavioral and Community Health Sciences

Concentrated Disadvantage Is a Risk Factor For Asthma In African American Female Adolescents

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PURPOSE: Asthma prevalence is 43% higher for African Americans compared with Caucasians. While multiple individual and community level factors have been considered, underlying mechanisms of these disparities are not entirely understood. Concentrated disadvantage has recently been linked to asthma prevalence; however, results of studies are mixed. The purpose of this study was to examine the relationship between concentrated disadvantage and asthma in a sample of African American girls.

METHODS: Data were collected for eligible participants from the Trim Teens Study. Inclusion criteria consisted of African American females 13-19 years of age residing in New Orleans, LA. The concentrated disadvantage index (CDI) was used to assess a comprehensive measure of socio-economic status.

RESULTS: Of the 86 adolescent girls eligible to participate, 19.8% were clinically defined as having asthma and 77.9% were obese. The mean age was 16 years ($SD=1.98$), and the CDI mean was 1.02 ($SD=.91$). CDI and asthma status were significantly correlated ($p=0.0239$); and remained significant after controlling for obesity and age ($p=0.0259$).

DISCUSSION: This preliminary analysis indicates that residing in an area with a high level of concentrated disadvantage is a risk factor for asthma, even after considering age and obesity level (factors often associated with asthma status). Few studies have utilized the CDI to measure the relationship between socio-economic status and asthma. These findings highlight the utility of the CDI to understand specific exposures associated with asthma among African American female adolescents living in highly disadvantaged neighborhoods.

Capers, Patrice L., PhD

UAB School of Public Health, Office of Energetics

Visual Representation of Body Shape in Women: Clinical Considerations*Patrice L. Capers, PhD; Amber W. Kinsey, PhD, CISSN; Edrika L. Miskell; Olivia Affuso, PhD, FACSM*

BACKGROUND: Body mass index (BMI) has been used widely among clinicians to assess obesity in their patients due to its ease and availability. However, BMI has some diagnostic limitations and other measures of body mass including body shape, body composition, and body fat distribution may be of greater relevance to health outcomes.

PURPOSE: To illustrate the importance of body shape assessments above and beyond BMI and its relationship to health risk among a diverse sample of women.

METHODS: African American (AA) and European American (EA) women aged 19 to 78 years (n=553) in Birmingham, Alabama were recruited and stratified by age (younger <40 years; older =40 years). Pictorial body shapes were derived from digital photographs while body fat distribution defined by android-gynoid ratio (AGR) and body composition were obtained from dual energy x-ray absorptiometry (DXA).

RESULTS: Among both age strata, more than 50% of women had a pear shape (AGR <1). Images of BMI and age-matched women illustrate variability in fat distribution. These differences persist within race using the =35% body fat cut-off. An apple shape was associated with higher odds of having diabetes (odds ratio, OR: 4.1, 95% confidence interval, CI: 1.9-9.3), hypertension (OR: 3.1, 95% CI: 2.0-4.7), and high cholesterol (OR: 95% CI: 3.1, 1.8-5.1).

CONCLUSION: Use of visual cues alongside traditional methods of weight status assessment may help to facilitate weight management conversations between physicians and female patients. However, next steps should include the validation of visual assessments of body shape by physicians in women.

Cedillo Juarez, Yenni E., MS**Poster 14**

UAB School of Health Professions

Length of Residence and its Association to Dietary Patterns, Physical Activity, and Body Mass Index among Latina Immigrants in Alabama*Yenni Cedillo, MNS; Jose Fernandez, PhD; Andrea Cherrington, MD MPH; Isabel Scarinci, PhD*

BACKGROUND: Immigration of Hispanics/Latinos to Alabama increased 162% between 2000 and 2014. However, little is known about the association between body mass index (BMI) and adaptation to the dietary and physical activity patterns in the new environment among Latina immigrants in "emerging Latino states." We examined the association between length of residence and dietary patterns and physical activity engagement among Latina immigrants in Alabama.

METHODS: This is a cross-sectional analysis of baseline data among Latina immigrants 19 years of age and older, recruited in the community to participate in a group randomized trial on cervical cancer prevention and control. Sociodemographic variables included country of origin, age, length of residence in Alabama, educational attainment, income, and number of children. Dietary patterns were assessed by food frequency and engagement in physical activity by days per week doing moderate activity. Statistical analysis includes Spearman (*r*) correlations between food intake, physical activity, and length of residence, one-way ANOVA to examine periods of changes in body mass index, and finally multiple regression models to measure the influence of socioeconomic factors, intake, and physical activity on BMI.

RESULTS: The sample was comprised of 218 women (85.3% Mexicans and 14.7% Central Americans) with ages of 20 to 50 years (30.7±6.8 years). Fifty percent reported consuming one portion or less fruit and vegetables per day, 31% reported consuming fried food more than 6 times per week, and 46% drinking two or more glasses of sugary beverages per day. There were no differences in dietary patterns and physical activity with varying length of residence. Multiple regression analysis found positive association between BMI and length of residence ($p=0.0059$), age ($p=0.0097$), and income ($p=0.0032$).

CONCLUSIONS: The data suggests that Latina immigrants living in Alabama have low intake of fruit and vegetables, high intake of fried food, and sugary beverages. BMI was associated with length of residence, age, and income. More quantitative research is needed to analyze specific nutrients from diet, and their implications on BMI, and health outcomes.

UAB School of Nursing

Multilevel Factors Associated with Adherence among African American Women Living with HIV

Crystal Chapman Lambert, PhD, CRNP; Michael Mugavero, MD, MHSc; Barbara Guthrie, PhD, RN, FAAN

PURPOSE: African American women are disproportionately burdened by HIV disease. African American women account for more than half of new HIV diagnoses among women; yet they only represent about 13% of the female population. Approximately 85% of those women diagnosed are receiving HIV care and even less women are receiving antiretroviral therapy (ART). Adherence to ART improves clinical outcomes, life expectancy, and reduces transmission of HIV. Yet, lower proportions of younger and African American women reach an undetectable viral load which increased their risk of poor health outcomes. Therefore, the purpose of the study was to examine multilevel factors associated with suboptimal appointment and medication adherence among African American women living with HIV in Alabama.

METHODS: In-depth interviews were used to gain a better understanding of the role and importance of multilevel factors (i.e., individual, social, community, and institutional) on appointment and medication adherence. We used the social-ecological model as the theoretical framework. Eight-teen African American women living with HIV ages 25-44 participated in the in-depth interviews. Results: The most common barriers to appointment adherence were transportation and perceived stigma. Many women indicated that being healthy and wanting to live for self, children, and/or grandchildren were motivators for medication and appointment adherence.

DISCUSSION: The results of the study can be used to guide the development of culturally relevant interventions aimed at improving medication and appointment adherence among African American women living with HIV.

Chowdhury, Indrajit, MS, PhD

Arlington

Morehouse School of Medicine, Obstetrics and Gynecology

Curcumin Attenuates Proangiogenic and Proinflammatory Chemokines and Cytokines in Eutopic Endometrial Stromal Cells Derived From Women With and Without Endometriosis

Indrajit Chowdhury; Roland Matthews; Winston E. Thompson; Sherifeh Mehrabi; Neil Sidell; Robert N. Taylor

BACKGROUND: Endometriosis is a chronic gynecological inflammatory disorder in which immune system dysregulation may play a role in its initiation and progression. Due to altered sex steroid receptor concentrations and other signaling defects, eutopic endometriotic tissues have an attenuated response to progesterone and are considered to be progesterone-resistant, which contributes to lesion proliferation and survival. Current agency-approved hormonal therapies, including synthetic progestins, GnRH-agonists, and danazol are often of limited efficacy and counterproductive to fertility, and can cause systemic side effects because of suppression of endogenous steroid hormone levels.

OBJECTIVE: We compared basal levels of pro-inflammatory chemokines, cytokines and angiogenic factors in normal endometrial stromal cells (NESC) and cells derived from eutopic endometrium of endometriosis subjects (EESC) and assessed the effects of curcumin, which has long been used as an anti-inflammatory folk medicine in Asian countries. Curcumin, a naturally occurring polyphenolic compound from *Curcuma longa*.

MATERIALS AND METHODS: ESCs were isolated from eutopic endometrial biopsies from 3 subjects with and 3 without evidence of endometriosis. The cells were cultured under established conditions and the effects of curcumin were assessed at different doses over a time course.

RESULTS: Our results confirmed that basal secretion of proinflammatory chemokines, cytokines, angiogenic factors and survival factors, including tumour necrosis factor- α (TNF- α), interleukin-1 β (IL-1 β), IL-6, IL-8, monocyte chemoattractant protein-1 (MCP-1) and vascular endothelial growth factor (VEGF) is higher in EESC compared to NESC. Furthermore, our studies showed that treatment of EESC and NESC with curcumin significantly reduced expression of those chemokines, cytokines and angiogenic factors in a dose-dependent and time-dependent manner.

CONCLUSION: These findings demonstrate chemokines and cytokines production differences in eutopic EESC compared to NESC and suggest that curcumin may have potential therapeutic uses in the reduction of inflammation associated with this disease.

This study was supported in part by National Institutes of Health Grants U01 HD66439, 1R01HD057235, HD41749, 1SC3 GM113751 and G12-RR03034. This investigation was conducted in a facility constructed with support from Research Facilities Improvement Grant #C06 RR18386 from NIH/NCRR.

Coleman, LaToya O., PhD**Poster 16****UAB School of Medicine, Preventive Medicine****An Examination of Preferences Surrounding Fruit and Vegetable Consumption among a Low Income African American Population in the Southeast**

LaToya O'Neal Coleman, MA, PhD; Lori Brand Bateman, PhD, RD; Theolishia Smith, MPH, ATC; Kim Young-il, PhD; Mona N. Fouad, MD, MPH

PURPOSE: Preventable nutrition-related diseases are implicated in over one-third of all deaths in the US (Xu et al. 2010). Numerous studies indicate that fruit and vegetable consumption is inversely associated with the risk of developing chronic diseases (Bazzano 2006; Robinson 2008). However, many individuals may not get the recommended servings of fruits and vegetables on a daily basis and this is particularly true among low income African Americans (Bahr 2007; Casagrande et al. 2007; Robinson 2008). Additionally, there may be overconsumption of sugary beverages and fried foods which are known to be associated with greater risk of obesity, diabetes, and coronary artery disease (Boggs et al. 2013; Cahill et al. 2014). The purpose of this study is to describe consumption patterns among a sample of low income African Americans in the southeast at the pre-intervention stage of a policy, system, and environment targeted intervention.

METHODS: Trained interviewers administered surveys in two census tracts in Jefferson and Mobile Counties in Alabama and Forrest County in Mississippi. Descriptive statistics for characteristics of participants at the pre-intervention stage were summarized and tabulated. Daily consumption of fruits and vegetables, sugary drinks, and fried foods at pre-intervention were calculated and presented by county including proportions of participants consuming fruit and vegetables at least once a day.

RESULTS: A total of 120 surveys were completed in Jefferson County, 62 in Mobile County, and 62 in Forrest County. Overall, 56.3% of participants reported consuming fruit more than once a day while only 40.2% reported consuming vegetables more than once a day. Over half (51.2%) of participants reported consuming more than one sugary drink per day while only 23.4% reported consuming fried food more than once a day.

DISCUSSION/CONCLUSION: The majority of participants reported consuming fruit and sugary beverages more than once a day. Less than half of participants reported consuming vegetables and fried foods more than once a day. Future research will examine the impact of a targeted intervention on community level outcomes such as the ones presented here.

This work was supported by a grant from the National Institute of Minority Health and Health Disparities (U54MD008602).

Collins, Robert, PhD**Centennial II****Dillard University, School of Social Sciences****Segregation and the Disparities in the Built Environment**

Robert Collins, PhD; Claudia Leonardi, PhD; Neal Simonsen, PhD

OVERVIEW: The goal of the proposed project is to employ an innovative multilevel approach with neighborhoods nested within cities (i.e., US Census Places) across Mid-South TCC states to determine whether cities with higher levels of black segregation disproportionately expose residents living in predominantly black neighborhoods to various risk factors in the social (e.g. concentrated disadvantage) and built environment (i.e., alcohol outlet density, unhealthy food outlet density, and food deserts).

BACKGROUND/RATIONALE: Despite the fact that disparities in rates of mortality for poor and minority populations have been documented and studied for decades, there is little consensus on the origins of these disparities. The conventional view implicates individual level factors for the higher rates of disease and death including access to and quality of health care, a behavioral profile that promotes risk, and/or a genetic predisposition to disease. Over the last several decades, researchers have initiated a number of efforts to identify conditions in residential environments to which poor and minority populations are exposed as a contributing factor in explaining health disparities. These efforts have highlighted a number of environmental factors that may account for health disparities, not the least of which is the role of black segregation. The goal of this project is to use a relatively new multilevel approach to test a conceptual model that links black segregation to exposure to neighborhood social and contextual risk in places characterized by high levels of segregation at the city level. We believe studying the potential effects of segregation at the city level is critical because this is the level where policies that shape the conditions at the neighborhood level are most likely to originate. Research Hypothesis #1 - There will be significant clustering of social (i.e., concentrated disadvantage) and built (e.g., unhealthy food outlet density) environment risk factors at the neighborhood level (i.e., in census tracts) across Mid-South TCC cities (i.e., US Census Places). Research Hypothesis #2 - The clustering of social and built environment risk factors at the neighborhood level will be explained by increasing levels of measures of black segregation at the city level, such that Mid-South TCC cities that are the most segregated have the highest levels of inequality in exposure to social and built environment risk factors.

DATA: Segregation Exposure Data - Data on segregation will be obtained from the Mid-South TCC Social Determinants of Health (SDH) Core database. US Place (city) level measures of both isolation and dissimilarity will be drawn from the 2010 US Census data. Neighborhood Risk Data - Census tract will be used as a proxy for neighborhood. Census tract level measures of risk factors in the built environment will be obtained from the Mid-South TCC SDH Core database including: alcohol outlet density, unhealthy outlet density, and supermarket density. In addition, measures of social environmental risk factors will be obtained from the Mid-South TCC SDH Core database including: concentrated disadvantage index and crime index. Neighborhood Demographic Data - Data from the 2010 US Census for various demographic measures at the census tract level will be accessed including but not limited to the following: median age, percent male, percent households in poverty, level of education, and percent Hispanic. Exclusions - US Places with fewer than five census tracts within the place will be excluded. In addition, US Places with fewer than ten percent black residents will be excluded. Statistical Analysis Plan and

METHODS: Multilevel analysis of census tracts nested with US Places across Mid-South TCC states will be conducted. Tests of significance for the degree of between city clustering (i.e., Intra-class Correlation Coefficients (ICCs)) of the various social and built environment risk factors will represent a test of Research Hypothesis #1. Tests of significance for the estimated effect for either of two measures of black segregation (i.e., dissimilarity or isolation) in explaining between city clustering will represent a test of Research Hypothesis #2.

UAB School of Public Health, Health Behavior

Applying Positive Deviance for HIV Prevention in the African American Community

Susan L. Davies, PhD; Lonnie Hannon III, Yookyong Lee

PURPOSE: To identify drivers of sexual risk-taking in a community disproportionately affected by HIV/STIs and unintended pregnancy.

METHODS: Focus groups were conducted with 19-24 year-old African American males (N=24). Participants were recruited using street intercept and snowball techniques.

RESULTS: Responses indicate inaccuracies (“they injected forty black men with syphilis and let them go out and spread it”), conspiracy theories (“you got what’s called the disease control center - they control how many strains they gone put out”; “AIDS come from world health organization”; “(HIV/AIDS) was created by a white man trying to destroy black people just like a white woman came up with the idea of abortion to slow down the black race”), and immense distrust (“we know more crackers use drugs ... crackers have more unprotected sex... so how are we rising? I don’t trust it”; “if there is a cure... we gone be the last ones to get it”) that many low-income men of color hold, which suggest feelings of powerlessness to protect themselves against HIV. There were also positive deviants among the group who were hopeful and solution-oriented: “I think people it got to start with us... it got to start with people that’s really concerned”; “if we start off with our kids, we can wipe AIDS out”; “Back in the old days they ringed a bell and they had community meeting; we as a black population... we need to ring a bell and come to our meeting and sit down and not discuss the problem but the solution”; “...if you don’t set no type of standards or no goals... for our kids... they gone do the same thing that us and everybody else (a)round our age doing, that’s hanging in the street, messing with the prostitutes, selling the dope, going to jail”.

DISCUSSION/CONCLUSIONS: We can learn a great deal from “positive deviants” who seek effective ways to tackle challenging problems, despite the same resources and circumstances. Future research should explore how positive deviants can be identified and leveraged to communicate accurate health messages and build trust in marginalized populations to reduce HIV and other health disparities.

UAB School of Medicine

Racial Disparities in Post-Operative Length-Of-Stay (poLOS) For Patients after Elective Colorectal Surgery

Aerin DeRussy, MPH; Matthew Giglia, MD; Drew Gunnells, MD; Allison Gullick, MSPH; Sara J. Knight, PhD; Melanie Morris, MD; Daniel I. Chu, MD

PURPOSE: To determine the contribution of race to poLOS in patients undergoing elective colorectal surgery.

METHODS: The Colectomy-Procedure Targeted National Surgical Quality Improvement Program (NSQIP) database from 2012-2013 was queried for elective colorectal surgeries. Patients with pre-discharge, in-hospital complications were excluded. Chi-square and Wilcoxon Rank Sums tests were used to determine differences among categorical and continuous variables, respectively. Predictors of poLOS were identified with multivariate regression using a negative binomial model. From this model, Incident Rate Ratios (IRR) and Least Squares Means (LSMean) were obtained.

RESULTS: Of the 28,480 patients who underwent elective colorectal surgery, 19,898 patients (69.8%) had no in-hospital complications. Median age was 61 years (IQR 51-71), and 84% were white, 9% were black, 4% were Hispanic, and 3% were Asian. Median poLOS was 4 days (IQR 3-6). Compared to white, Hispanic and Asian patients, Black race was associated with higher rates of smoking (20% vs. 17%, 16%, 11%), hypertension (61% vs. 46%, 39%, 40%), ASA scores >2 (55% vs. 43%, 39%, 36%), and open procedures (37% vs. 32%, 30%, 25%). After adjusting for covariates, black race increased poLOS by 9% compared to white patients (IRR 1.09, p <.001), 7% compared to Hispanic patients (IRR 1.07, p =.001), and 6% compared to Asian patients (IRR 1.06, p <.006). There was no statistical difference in poLOS for any of the non-black comparisons. The LSMeans for poLOS were 5.1 days for black patients, 4.8 days for Hispanic and Asian patients, and 4.7 days for white patients.

CONCLUSIONS: Black patients have significantly longer post-operative LOS after elective colorectal surgery even if no postoperative complications occur. The etiologies behind this disparity remain unclear, but may include non-NSQIP measured elements such as social and behavioral determinants of health.

Donnelly, John P., MSPH**Poster 18****UAB School of Public Health****Racial Differences in Factors Mediating the Association between Neighborhood Socioeconomic Status and Infection: A Cohort Study**

John P. Donnelly, MSPH; Sindhu Lakkur, PhD; Suzanne E. Judd, PhD; Emily B. Levitan, ScD; Russell Griffin, PhD; George Howard, PhD; Monika M. Safford, MD; Henry E. Wang, MD, MS

PURPOSE: Neighborhood environment may influence health, beyond the effects of individual factors. Prior literature associates neighborhood socioeconomic status [nSES] with cardiovascular risk, but there is limited data on infection. We examined the association of nSES with infection rates and identified individual-level mediators.

METHODS: We analyzed data from the REasons for Geographic and Racial Differences in Stroke study, a cohort of White and Black adults aged ≥ 45 years. The exposure was nSES, defined using the neighborhood summary score as described by Diez Roux. For each participant block group, scores were calculated by summing nationally-standardized economic indicator values [e.g., household income, percent single female-headed households]. We classified participants into race-specific tertiles [Low/Medium/High nSES] due to minimal overlap between Blacks and Whites. The outcome was self-reported infection hospitalization over 2003-2012, confirmed via chart review. Covariates included demographics, health behaviors, comorbidities, conditioning [e.g., weakness/poor physical health per SF-12], and biomarkers. We fit Cox models to determine the association of nSES with infection, reporting hazard ratios [HRs]. For mediation analysis, we specified nSES as the exposure and reported the indirect effect for each covariate as a percentage of the total with bootstrapped confidence intervals [CIs].

RESULTS: We identified 2,593 total infections among 29,683 participants over a median follow-up of 6.5 years. Infection incidence was higher for Low than High nSES among Black [14.4 vs. 9.9 per 1,000 person-years; $p < 0.001$] and White [19.3 vs. 12.3; $p < 0.001$] participants. After adjustment for covariates described above, Low nSES was associated with increased infection rates among both Whites [HR 1.19; CI 1.02-1.37] and Blacks [HR 1.15; CI 0.95-1.39], but for Blacks the association was not statistically significant. The strongest mediating factors for Black participants were individual income [45.7%; CI 24.0-101.6], weakness [18.4%; CI 9.8-40.9], and diabetes [10.8%; CI 5.6-26.6]. The strongest mediators for White participants were weakness [24.4%; CI 16.6-37.8], income [22.5%; CI 11.2-40.7], and education [20.4%; CI 10.0-39.0].

CONCLUSIONS: nSES was independently associated with infection among White participants. Individual income was the strongest mediator for Black participants, while weakness was strongest for White participants. These results highlight important racial differences in the pathways through which nSES impacts infection rates.

Felton, Perry, OD**Poster 19****UAB School of Optometry****Retrospective Clinical Study to Determine Impact of Multiple Models of Outreach Eye Clinic Interventions on Disadvantaged Individuals**

Shilpa J. Register, OD, MS, PhD; Felton Perry, OD; Janene Sims, OD, PhD; Gerald Simon, OD; Alexia Vaughn, OD, MS, MBA; Scelelar Jefferson

PURPOSE: Community Eye Care (CEC) was founded in 1973 and is designed as a mobile unit to "create" a clinic wherever it is needed. CEC has a dedicated mission to train optometrists to deliver care where ever it is needed, and is comprised of 45 interns, one staff, and five faculty who provide eye and vision care in many outreach locations including Alabama's Blackbelt. The Blackbelt represents rural Alabama where there is limited access to eyecare for appropriate diagnosis, treatment and management of visually threatening diseases, many of which are associated with systemic health problems including diabetes and hypertension.

METHODS: We performed a systematic retrospective data analysis on electronic and paper health records from individuals seen at our community outreach clinics as part of UAB Eye Care. As part of our outreach program, we have served patients in Hale, Sumter, Perry, Elmore, Dallas, Lowndes, Montgomery, Bullock, Butler, Wilcox, and Conecuh Counties. Extracted records included comprehensive and follow up eye examinations performed in the Blackbelt. Individuals included in this study range from infancy to older adults primarily from low-income or underserved areas. Information was de-identified and analyzed using current procedural terminology codes, age, gender, race/ethnicity, and insurance type.

RESULTS: Data analysis began after review of 3860 records obtained from UAB Eye Care's electronic health record, Compulink. Duplicate entries were removed resulting in 1156 unique patient records. Of these, patients' age ranged from 5-100 with 70.93% female and 29.07% male. Additionally, patients within this subset whose race was identified represented 84.87% African Americans, 14.56% Caucasian, 0.28% Asian, and 0.28% Other. Data on diagnoses was limited to 757 records due to missing data; however, 9.25% represented patients with diabetes and the remainder (90.75%) represented refractive error. Additional analysis is underway and is expected to be completed within the next month.

DISCUSSION/CONCLUSIONS: Based on the initial information obtained from the electronic health record search, it is evident that African Americans are more affected by lack of eye care in the Blackbelt. The representative diagnosis from this data demonstrates the need for effective eyecare interventions targeting underserved areas in Alabama.

UAB School of Medicine, Division of Infectious Diseases

Racial and Geographic Disparities in Hepatocellular Carcinoma Outcomes

Ricardo Franco, MD; Yunhua Fan, MS; Stephanie Jarosek, PhD; Turner Overton, MD; Sejong Bae, PhD; James Galbraith, MD

BACKGROUND: Geographic variations in demographics, healthcare quality and access highlight the importance of 1) detecting enhanced disparities within local contexts and across regions; and 2) efforts to address causes of disparities that are region specific. Little is known about whether racial disparities in Hepatocellular Carcinoma (HCC) outcomes are intensified in Deep South-SEER areas. We examined racial disparities in HCC demographics, tumor characteristics, receipt of treatment and mortality in southern registries.

METHODS: We queried the Surveillance Epidemiology and End Results (SEER) and identified 59,869 patients with HCC diagnosed from 2000 through 2012; we excluded patients with fibrolamellar carcinoma (ICD-9 histology codes 8171), HCC diagnosis less than 1 month prior to death, prior primary malignancies, and those with unknown race. The final cohort had 43,868 patients [5,455 in southern registries (metropolitan Atlanta, Louisiana, rural and greater Georgia)].

RESULTS: compared to Whites, AA were significantly younger at HCC diagnosis, more likely diagnosed with regional and distant metastasis, less likely to receive treatment including Liver Transplantation in both southern and non-southern registries. After adjustment (location, age, gender, stage, grade and treatment regimen), AA patients had significantly higher risk of death compared to white patients (HR: 1.08, 95% CI: 1.05-1.12, $p < 0.0001$) in both southern registries (HR: 1.10, 95% CI: 1.03-1.17, $p = 0.007$) and other registries (HR: 1.08, 95% CI: 1.04-1.12, $p = 0.0002$). The patients in southern registries had higher risk of death compared to those in other registries (HR: 1.13, 95% CI: 1.09-1.16, $p < 0.0001$).

CONCLUSIONS: Racial and geographic disparities both had independent associations with excess HCC mortality in this contemporary SEER analysis. Further studies are needed to understand the root causes of excess mortality among AA and overall populations living in the Deep South.

Ghebremedhin, Anghesom, MS

Poster 20

Tuskegee University College of Arts and Sciences, Integrative Biosciences

A Novel Peptide that Suppresses the Protumorigenic M2P Polarized Tumor Associated Macrophages Holds a Great Therapeutic Promise for African Americans

Anghesom Ghebremedhin; Jacqueline Jones-Trich; Balasubramanyam Karanam; Benjamin Adu-Addai; Charles Garvin; George Martin; Henry Lopez; Jesse Jaynes; Clayton Yates

INTRODUCTION: Multiple reports have demonstrated that the protumorigenic tumor associated macrophages (TAMs) are highly expressed in African Americans compared to Caucasians. Thus, limiting the pro-tumorigenic activity of TAMs can help narrow cancer health disparities.

OBJECTIVE: To determine whether a novel Cluster of Differentiation 206 (CD206) receptor targeting peptide, RP-182, limits the number of TAMs within the tumor microenvironment.

METHOD: Primary cells were isolated from C57BL/6J mice from Jackson Laboratory and were polarized to M1 and M2 phenotypes by treating with IL-4 (20ng/ml) and IFN- γ (10ng/ml) respectively from R&D Biosciences for 24 hrs. CD206 targeting peptide, RP-182, was biotin-labeled and utilized to treat M2-polarized cells. Precipitated proteins were analyzed by mass spectrometry analysis, and informatics software. In vitro proliferation and confirmation of apoptosis was assessed using Annexin/PI staining and Western blot analysis for Caspase 8 expression and activity. In xenograft models of triple negative breast cancer (MDA-MB-231), mice were treated with CD206 peptide and gemcitabine, singularly or in combination. Immunohistochemical analysis of treated tumors was also performed to assess the expression of macrophages.

RESULTS: Mass spectrometry analysis of gel bands from the biotin / streptavidin pull down assay confirmed CD206 as a target. Bioinformatics analysis of the proteomics data further confirmed that apoptotic proteins were significantly highly expressed in the M2 populations than in the M1 populations. RP-182 also significantly decreased cell proliferation only in M2 macrophages, through activation of Caspase 8 activity. Annexin/PI staining further demonstrated that the peptide caused apoptosis specifically in M2 macrophages. In a xenograft model of triple negative breast cancer (MDA-MB-231), mice treated with peptide alone (10 mg/kg qD subcu) resulted in a 39% reduction in MD-MB-231 tumor growth; gemcitabine @ 40 mg/kg q4D demonstrated a 68% reduction; however, peptide plus gemcitabine completely blocked tumor growth. Moreover, immunohistochemistry staining of showed a decrease in the expression of CD206 positive macrophages and CD45/CD25 positive Treg cells, and an increase in CD86 positive M1 macrophages.

DISCUSSION AND CONCLUSION: These results suggest that RP-182 enhances tumor response to chemotherapy by limiting the pro-tumorigenic activity of TAMs and thus hold a great therapeutic promise for African Americans.

Gomez, Ricardo, MD**Poster 21**

LSU School of Medicine, Pediatric Endocrine

Labile Hemoglobin A1c (HbA1c) is Higher in Blacks than Whites at the Same Glucose Level: A Precursor to Racial Disparity in Stable HbA1c*Hamdan, Mahmoud, MD; Chalew S, MD; Hempe J, MD; Gomez R, MD*

Higher stable HbA1c levels (S-HbA1c) have been observed in blacks (Diabetes Care 2010, 33:1025) compared to whites even at the same mean blood glucose (MBG). To better understand the mechanism of this difference, we measured total labile HbA1c (L-HbA1c) and its subcomponents labile A1c1 and labile A1c2 (AnalBiochem. 2012; 424:149) by capillary isoelectric focusing in a biracial sample of youth with type 1 diabetes. Thirty-two black (18F,14M) and 52 white patients (22F, 30M) had hemoglobin (Hb), glucose, S-HbA1c, L-HbA1c, labile A1c1 and labile A1c2 obtained at clinic visit. MBG for the prior 30 days was calculated from patient glucose meters. Simple differences between groups were assessed by t-test. The influence of race on the glycated Hbs was further analyzed in multiple variable regression modelling using a general linear model, difference between races tested on adjusted LS means. Blacks had higher S-HbA1c than whites ($p=0.0363$) even after adjustment for MBG ($p<0.0001$), chronologic age ($p=0.0086$), and gender $p=NS$, (overall model $r^2=0.58$, $p<0.0001$). L-HbA1c was correlated with concurrent glucose level at the time of blood drawing. L-HbA1c remained higher in blacks (LSMean=4.8) compared to whites (LSMean=4.1) even after adjustment for concurrent glucose and chronologic age, (overall model $r^2=0.44$, $p<0.0001$). Labile A1c1 but not labile A1c2 levels was higher in blacks compared to whites when statistically controlled for concurrent glucose. This study indicates that glucose independent racial disparity is already evident in labile precursor to S-HbA1c. L-HbA1c should not be influenced by RBC lifespan or longer term MBG. Thus differences in intracellular glucose levels or factors facilitating formation of labile A1c1 may ultimately lead to the observed MBG-independent racial disparity in sHbA1c. Such factors may need to be taken into account when using S-HbA1c for estimating glycaemia or for diagnosis of diabetes between racial groups

Goss, Lauren**Poster 22**

UAB

Racial Disparities in Post-Operative Complications for Patients Who Die After Surgery*Lauren Goss; Matthew Giglia, MD; Robert Hollis, MD; Marco Ferrara, MD; Allison Gullick, MSPH; Melanie Morris, MD; Daniel Chu, MD*

INTRODUCTION: To determine the contribution of race to post-operative complications in patients who died after major abdominal surgery.

METHODS: We queried the 2012-2013 American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) cohort for all patients who died within 30-days after major abdominal surgery and stratified patients by race. Primary outcome was post-operative complications. Univariate/bivariate comparisons and backwards stepwise logistic regression analysis were used to identify predictors of selected complications.

RESULTS: Of 5,677 patients who died within 30 days after major abdominal surgery, 86.8% and 13.2% were white and black, respectively. Compared to white patients, black patients who died had more pre-existing co-morbidities including diabetes mellitus (32.0% vs 24.1%), hypertension (74.8% vs 68.2%), ASA class 4 or higher (61.2% vs 52.5%), smoking (22.1% vs 18.8%), and poor functional status (11.1% vs 6.0%) ($p<0.05$). On unadjusted comparison, black patients experienced significantly higher rates of 3 or more total postoperative complications (39.28% vs 32.10%), cardiac (32.76% vs 19.98%), renal (18.11% vs 14.74%), bleeding (44.34 vs 38.10%) and respiratory complications (53.93% vs 49.23%) in addition to longer in-hospital lengths of stay (11 days vs 8 days). On multivariate analysis, black race remained an independent predictor for having more than 3 post-operative complications (Odds Ratio [OR] 1.4, 95%-Confidence Interval [CI] 1.1-1.6) and for cardiac complications (OR 2.0, 95%CI 1.7-2.4).

CONCLUSIONS: Black patients who die after major abdominal surgery suffer from significantly more postoperative complications than white patients even after adjustment for differences in co-morbidities. In particular, black patients have two times higher odds of post-operative cardiac complications.

LSU School of Public Health

Maternal Body Mass Index Is Associated with Offspring's Nutritional Intake

Lauren Griffiths, MPH; Maura Kepper, MPH; Claudia Leonardi, PhD; Richard Scribner, MD, MPH; Cruz Velasco-Gonzalez, PhD; Jovanny Zabaleta, PhD; Nicole Pelligrino, MPH; Meg Skizim, MPH; John Estrada, MD; Melinda Sothern, PhD

PURPOSE: Adolescent obesity has increased in the past three decades. It is well established that maternal body mass index [BMI] is associated with offspring weight status from childhood to adulthood. Research examining relationships between maternal BMI and offspring nutritional intake is limited.

METHODS: Adolescents [N=51; 11-18 years (14.45 SD=1.65); M=25 (49%); F=26 (51%); African American=14 (27%); Caucasian=32 (63%); Other=5 (10%); Overweight/Obese=29 (57%)] and their mothers participated in a study to examine relationships between weight status and nutritional intake. Research nurses measured offspring weight/height, and mothers self-reported current weight/height. Trained staff administered 24-hour dietary recalls to adolescents using the Nutrition Data System for Research software [NDSR].

RESULTS: Offspring and maternal mean BMI were 25.1 and 28.7, respectively [SD=6.27, SD=5.54] and were positively associated [p=0.01]. Offspring mean daily food intake values were: total caloric intake [TCI]=1675.58 kilocalories [SD=766.70]; saturated fatty acid [SFA]=22.85 g [SD=15.84]; carbohydrate [CARB]=214.38 g [SD=103.66]; total fiber [FIB]=10.91 g [SD=6.92] and omega-3 [O-3]=1.38 g [SD=0.90]. Maternal BMI was positively associated with TCI, SFA, CARB, FIB and O-3 after controlling for gender and race [(p<0.01) Multiple Regression]. Significance remained after further adjustment for offspring BMI. Relationships between maternal BMI and SFA, CARB, FIB and O-3 were not significant after adjustment for TCI. For every one unit increase in maternal BMI, offspring consumed 73 more kilocalories/day [p<0.01]. Mean fruit/vegetable intake was 2.23 [SD=2.22] servings/day, but was not significantly related to maternal BMI.

CONCLUSIONS: Maternal BMI was not related to diet quality, but rather with an increase in the amount of food consumed by the offspring. Findings identify a need to address the overall excess daily caloric intake of adolescents by considering maternal weight status and associated health behaviors.

LSU School of Medicine, Pediatric Endocrine

Differences in RBC Indices Do Not Explain Racial Disparity in HbA1c in Children with Type 1 Diabetes (T1D)

Hamdan M, MD; Hempe J, PhD, Gomez R, MD, Vargas A, MD; Kamps J, PhD; Chalew S, MD

BACKGROUND: Blacks with T1D have been consistently found to have higher HbA1c than Whites, even when the HbA1c data is adjusted for concurrent mean blood glucose (MBG). Thus factors besides MBG appear to play a role in racial disparity of HbA1c. HbA1c is influenced by RBC lifespan and RBC indices. RBC indices often differ between the races. We hypothesized that differences in RBC indices between blacks and whites account for non-MBG racial disparity in HbA1c.

METHODS: Pediatric patients with T1D in the Diabetes Clinic at Children's Hospital of New Orleans who self-identified as either black or white were recruited for the study. At the time of clinic visit labs were drawn for HbA1c, MBG was derived from the average of self-monitored capillary glucoses from the patient's home glucose monitor. Hemoglobin (Hb), hematocrit (Hct), mean corpuscular volume(MCV), mean corpuscular Hb (MCH), MCH concentration (MCHC) platelet number (Plt), white cell count (WBC), red cell distribution width (RDW) coefficient of variation (RDWCV) and RDW standard deviation (RDWSD) from the most recent annual lab were analyzed. The influence of CBC indices, gender, race, MBG and age as independent variables were tested on HbA1c in a multiple variable general linear model using SAS software.

RESULTS: Our study population was comprised of 84 patients (33 black and 51 white; 43 male, 41female). Among all patients HbA1c was correlated with MBG (r=0.64, p<0.0001), MCH (r=-0.25, p=0.0196), MCHC(r=-0.26, p=0.019), Plt(r=0.29, p=0.0074), RDWCV (r=0.5, P<.0001), RDWSD(r=0.36, p=0.0009) and WBC(r=0.23, p=0.0342). Patient age was correlated with Hct(r=0.54, p<.0001), MCV(r=0.32, p=0.003), MCH(r=0.29, p=0.0072), and RDW-SD (r=0.27, p=0.0132). There were significant differences in multiple variables between the races (see Table), except age, Hb and RDWSD.

Index	Black	White	p
HbA1c (%)	10.8±1.7	8.86±1.18	P<0.0001
MBG (mg/dL)	260±86	197±43	P=0.0003
Hct (%)	40±3.70	41.6±3.0	P=0.0177
MCV (fL)	80.8±5.70	84.5±4.60	P=0.0028
MCHC (g/dL RBC)	33.5±1.50	34.3±0.90	P=0.0060
RDWCV (%)	13.5±1.10	12.6±0.60	P=0.0001
MCH (PG)	27.10±2.43	28.98±1.87	P=0.0003

In the regression model with HbA1c as the dependent variable with Race, MBG, RDWCV, gender, and age as independent variables the overall model was significant R² =0.58, p<0.0001. MBG (p<.0001), Race (p=0.0028), RDWCV (p=0.0065), age (p=0.0284), were all found to have significant influence on HbA1c, while gender did not. The least squares mean for HbA1c for blacks and whites adjusted for the other variables in the model were 10.2% and 9.2% respectively (p=0.0028). Substitution of the other CBC indices in the model for RDWCV as an independent variable were not statistically significant while both Race and MBG remained significant.

CONCLUSIONS: HbA1c remains significantly higher in blacks compared to whites even after the influence of MBG and CBC indices are removed. This indicates that factors in addition to MBG and RBC indices contribute to higher observed HbA1c in black patients with T1D.

Use of Mixed Methods in Evaluating a Healthcare Education and Health Insurance Enrollment Program

He, Ying, MPH

PURPOSE: To increase the awareness of the Affordable Care Act (ACA) and to enroll minority populations within the Jackson, MS and surrounding areas in affordable health insurance, My Brother's Keeper, Inc. (MBK) implemented a comprehensive community-based participatory program (CBPP). Given the complexity of the program objectives, the use of mixed methods in evaluating their effectiveness is particularly applicable. The purpose of this presentation is to describe and analyze the mixed method evaluation approach used by MBK.

METHODS: MBK utilized a participatory and formative evaluation approach guided by a conceptual framework for assessing multiple dimensions of this CBPP. The evaluation plan included internal quality assurance, process evaluation and outcome evaluation. The evaluation team was responsible for inputting, analyzing and compiling quarterly reports for all data collected through the program. Data collection tools included Client Satisfaction Surveys, sign-in sheets, and participant's feedback and knowledge assessment forms which obtained both quantitative (closed-ended questionnaire) and qualitative (open-ended comments) data. Evaluation activities include quarterly process monitoring, programmatic data collection and quarterly data analysis.

RESULTS: During the first quarter of Project year 2 (September-November, 2015), MBK conducted 14 educational and enrollment events with a total of 147 participants. 98% of participants showed high satisfaction with the program. Results indicated that 96.3% of the participants agreed they would refer family and friends to MBK for assistance with enrolling in the Health Insurance Marketplace. 99.3% of the participants agreed that their awareness of the ACA increased due to the educational sessions. Furthermore, 97.2% agreed that they learned new skills.

DISCUSSION: The use of mixed methods produced important findings on factors contributing to the effectiveness of this on-going program. Using multiple methods was a productive strategy to ensure rigor, examine convergence, and apply findings to document. The intentional integration of mixed methods is an important approach to evaluate and foster the success and sustainability of CBPP. The success, potentials, and lessons learned in applying mixed methods for evaluation were discussed and analyzed.

UAB School of Public Health

Disparities in the Incidence of Cardiovascular Risk Factors in Black and White Adults

George Howard, Monika Safford; Claudia Moy; Virginia Howard; Dawn Kleindorfer; Fredrick Unverzagt; Elsayed Soliman; Matthew Flaherty; Leslie McClure; Daniel Lackland; Virginia Wadley; LeaVonne Pulley; Mary Cushman

PURPOSE: The black-white disparity in life expectancy is largely attributable to disparities in cardiovascular diseases, which are partially attributable to higher risk factor prevalence in blacks. Herein, we describe the black-white disparity in the incidence of cardiovascular risk factors in the US adult population aged 45+.

METHODS: Incidence of hypertension, diabetes, dyslipidemia and atrial fibrillation over 10 years of follow-up was assessed in 10,801 black and white adults from the REasons for Geographic And Racial Differences in Stroke.

RESULTS: 41% developed hypertension, with an incidence 1.24-times (95% CI: 1.12 - 1.37) higher in black than white men. In women, this disparity differed by age, with a 1.93-fold (95% CI: 1.55 - 2.41) higher incidence at ages 45-54, and 1.18-fold (95% CI: 0.84 - 1.65) higher risk above age 75. 15% developed diabetes, with an incidence 1.52-fold (95% CI: 1.31 - 1.78) higher in black men, and 2.14-fold (95% CI: 1.86 - 2.46) higher in black women. 28% developed dyslipidemia, overall black men were at 1.15-fold (95% CI: 1.04 - 1.28) higher risk; however, among women, the disparity increased with age: no disparity at ages 45-54, to a 1.39 (95% CI: 1.00 - 1.95) at age 75+. 9% developed incident atrial fibrillation, with black men and women both at lower risk (RR = 0.51; 95% CI: 0.42 - 0.63 for men; and 0.57; 95% CI: 0.47 - 0.70 for women).

CONCLUSIONS: Blacks have a higher incidence of hypertension, diabetes, and dyslipidemia even after age 45, underscoring the ongoing importance of primordial prevention of these conditions in mid- to late-life in order to reduce racial disparities in cardiovascular disease.

UAB School of Public Health

Differences in the Role of Black Race and Stroke Risk Factors for First Versus Recurrent Stroke

George Howard; Brett Kissella; Dawn Kleindorfer; Leslie McClure; Elsayed Soliman; Suzanne Judd; David Rhodes; Mary Cushman; Claudia Moy; Kara Sands; Virginia Howard

PURPOSE: Assess if black race and other cerebrovascular risk factors have a differential effect on first versus recurrent stroke events.

METHODS: Estimate the differences in the magnitude of the association of demographic (age, back race, sex) or stroke risk factors (hypertension, diabetes, cigarette smoking, atrial fibrillation, left ventricular hypertrophy, or heart disease) for first versus recurrent stroke from a longitudinal cohort study of 29,682 black or white participants aged 45+.

RESULTS: Over an average 6.8 year follow-up, 301 of 2,993 participants with a previous stroke at baseline had a recurrent stroke, while 818 of 26,689 participants who were stroke-free at baseline had a first stroke. Among those stroke-free at baseline, there was an age-by-race interaction ($p = 0.0002$), with a first stroke risk 2.70 (95% CI: 1.86 - 3.91) times greater for blacks than whites at age 45, but no racial disparity at age 85 (HR = 0.91; 95% CI: 0.70 - 1.18). In contrast, there was no evidence of a higher risk of recurrent stroke at any age for blacks ($p > 0.05$). The association of traditional stroke risk factors was generally similar for first and recurrent stroke.

DISCUSSION/CONCLUSION: The association of age and black race differs substantially on first versus recurrent stroke risk, with risk factors playing a similar role.

UAB School of Public Health

Characteristics Associated with Assessing Stroke Patients For Rehabilitation During Acute Stroke Hospitalization: Findings from the National REGARDS Study

Virginia Howard, PhD

BACKGROUND: "Assessment for rehabilitation" (AFR) is an acute stroke care quality measure that is included in clinical guideline recommendations. Previous reports from "Get With The Guidelines (GWTG)" and the Coverdell Registry have shown compliance rates as high as 90 to 94% in stroke patients. These studies showed that blacks, males, and younger patients were more likely to receive AFR. The objective of this study was to examine the frequency and predictors of AFR in stroke patients admitted to non-select hospitals across the US.

METHODS: We abstracted data from ischemic stroke hospitalizations that occurred between 2003-2012 within REGARDS, a national US cohort study of blacks and whites aged ≥ 45 years at time of enrollment. Definition of AFR included any of the following: consult by rehab services, assessed by rehab team member, receipt of rehab during hospitalization. Independent patient and hospitalization characteristics associated with AFR were identified by logistic regression.

RESULTS: Information on AFR was determined in 536 of 546 ischemic stroke hospitalizations. The median age was 73.8 ± 8.6 years, 50% were women, 46.8% were black. Three-quarters (76%) of the patients (406/536) had AFR. In univariate analyses, participants who were older, black, those with higher modified Rankin Score (mRS) and those evaluated by a stroke team were more likely to be assessed for rehabilitation, while participants in the west region of the US were least likely to be assessed. After multivariable adjustment, those who were older (OR=1.33; 95%CI: 1.01, 1.77), those with a higher mRS (OR=2.52; 95%CI: 1.50, 4.21 mRS=2 or 3) (OR=9.04; 95%CI:4.83,16.94 mRS=4 or 5) compared to mRS=0 or 1) and those evaluated by a stroke team (OR=3.59; 95%CI: 1.04, 12.40) remained more likely to be assessed, while there was no statistically significant association of race, sex, or region.

CONCLUSIONS:The proportion of stroke patients assessed for rehabilitation was much lower in this national sample compared to previous registry based reports. Our findings did not confirm that younger patients, blacks and men were more likely to receive AFR. Those with more severe strokes were more likely to receive AFR. Further examination of patient and hospital characteristics is warranted.

		UNIVARIATE		MULTIVARIABLE	
		Odds Ratio (95% CI)	P-value	Odds Ratio (95% CI)	P-value
Age (per 10-years)		1.38 (1.09 - 1.75)	0.0070	1.33 (1.01 - 1.77)	0.045
Black race		1.57 (1.05 - 2.35)	0.029	1.24 (0.76 - 2.02)	0.38
Male sex		0.96 (0.65 - 1.43)	0.84	1.13 (0.71 - 1.80)	0.61
Admission Rankin (reference = 0 or 1)	Rankin 2 or 3	2.81 (1.75 - 4.51)	<0.0001	2.52 (1.50 - 4.21)	<0.0001
	Rankin 3 or 4	10.41 (5.75 - 18.85)		9.04 (4.83 - 16.94)	
Evaluated by stroke team		4.75 (1.45 - 15.63)	0.010	3.59 (1.04 - 12.40)	0.043
Region (reference = West region)	Midwest	3.68 (1.54 - 8.83)	0.018	2.43 (0.88 - 7.76)	0.29
	Northeast	4.38 (1.41 - 13.58)		2.90 (0.81 - 10.37)	
	South	2.64 (1.24 - 5.62)		2.24 (0.91 - 5.50)	

Howard, Virginia, PhD

UAB School of Public Health

Black-White Differences in the Association of Neighborhood Socioeconomic Status with AHA's Life's Simple 7: REGARDS Study*Virginia Howard, PhD*

PURPOSE: The AHA's Life's Simple 7 (LSS) assesses cardiovascular health. Neighborhood socioeconomic status (N-SES) influences health; however, data are limited on racial differences in the association of N-SES and LSS. The aim of this study was to examine the association between levels of cardiovascular health and N-SES. We hypothesized that higher N-SES is associated with better cardiovascular health similarly in whites and blacks.

METHODS: We studied 9,899 black and white participants aged 45+ years of age without cardiovascular disease from the national REasons for Geographic and Racial Differences in Stroke (REGARDS) Study across 1,833 counties in the US. The LSS metrics (blood pressure, cholesterol, glucose, body mass index (BMI), smoking, physical activity, diet) were scored as poor, intermediate or ideal. N-SES was indexed by a composite score of six measures of wealth, income education, and occupation. Linear regression was used to estimate the relationship of N-SES quartile with LSS score (individual components and composite) by race group (with least squares mean estimation of the relationship.) The association of N-SES with both ideal health (vs intermediate or poor) and poor health (vs intermediate or ideal) was assessed adjusting for age and sex, and additional adjustment for individual SES (I-SES as income and education).

RESULTS: After adjustment for age and sex, N-SES has a larger impact on LSS in whites than in blacks ($p=0.0014$), increasing almost twice as fast per quartile of N-SES in whites (0.30; 95% CI: 0.25 to 0.34) compared to blacks (0.16; 95% CI: 0.09 to 0.23.) After further adjustment for I-SES, the association was attenuated for both races but the black-white differences were more significant ($p=0.0001$). The association between N-SES and LSS remains significant in whites (0.17; 95% CI: 0.12 to 0.22) but not in blacks (0.02; 95% CI: -0.05 to 0.09)

CONCLUSIONS: Higher N-SES was strongly associated with better LSS status in whites, even after adjustment for I-SES. However, the association between N-SES with better LSS status was much weaker in blacks, and was largely attenuated with adjustment for I-SES. With regard to LSS, place matters for whites, but plays a much smaller role for blacks.

Hughley, Raymond W.**Poster 26**

Tuskegee University School of Natural Sciences & Mathematics, Biology

The Development of a Genomic Health Disparity Database and Analytic Tool*Raymond Hughley; Shweta Tripathi; Mellissa Davis; Clayton Yates*

Publicly available datasets such as The Cancer Genome Atlas (TCGA) provides scientific investigators and clinicians access to multiple NGS applications of patients including exome sequencing, comparative genomic hybridization arrays, DNA methylation arrays, RNA sequencing, and reverse protein phase arrays. Many tools are being developed to allow basic researchers and clinicians without bioinformatics training to envisage, analyze and understand the data, however, at the moment there is no centralized location to obtain sequenced genomic data that permits analysis of cancer patients based on health disparities. Interestingly, genomic analysis tools such as OncoPrint and KMplot do not provide ethnicity as a search criteria. Whether, this is a lack of ethnicity obtained at during sample acquisition or lack of including in the study, the result is that very few dataset have racial information, limiting the large scale analyses due to insignificant sample populations.

Therefore, we proposed to create a data base that combines genome sequenced information from multiple locations that include racial information. Additionally, we have developed analytical tools to access files from databases like GSE files and the TCGA data, which contain information on race. Normalization of the combined datasets for each gene from each study where identified using David or the direct probe sequence information for each sequencing machine. R statistical language (Limma) and multiple packages where used to merge the data sets into one centralized form. Ancestry markers (AIMS) and SNPs where used to verify ethnicity. We further developed analytic tools analyze Gene Expression and patient survival. The development of such a resource can greatly contribute in solving many of the health disparities questions being asked today and in the future.

Jackson, Bradford E., PhD

University

UAB School of Medicine, Division of Preventive Medicine

Disparities in Chronic Medical Conditions in the Mid-South: A Socio-Demographic Approach

Bradford E. Jackson, PhD; Gabriela Oates, PhD; Karan Singh, PhD; James Shikany, DrPH, PAC; Mona Fouad, MD MPH; Edward Partridge, MD; Sejong Bae, PhD

PURPOSE: The Mid-South states of Louisiana, Arkansas, Mississippi, Alabama, Tennessee, and Kentucky comprise a geographically clustered area which has ranked among the least healthy states in the nation. The purpose of this study was to examine differences in socio-demographic characteristics and preventive health behaviors relevant to chronic medical conditions (CMCs) among a subpopulation with increased burden of chronic disease.

METHODS: Data were obtained from the 2013 Behavioral Risk Factor Surveillance System, which contains self-reported socio-demographic information (income, education, employment, race, and gender), information on health behaviors (smoking, physical activity, and fruits/vegetables consumption), and chronic medical conditions. The top five prevalent CMCs in the Mid-South states were asthma, high blood pressure (HBP), obesity, arthritis, and depression. Using multivariable logistic regression and accounting for the complex survey design, we estimated the odds ratios (OR) and confidence intervals (CI) of race-gender combinations compared to white males. We also examined how the associations of demographic characteristics and CMCs differed according to annual income.

RESULTS: The weighted prevalence estimates of the top five CMCs in the Mid-South ranged from 66% (asthma) to 20% (depression). In the adjusted analysis, higher income and employment were associated with better outcomes in all five CMCs. Higher educational attainment and physical activity were associated with better HBP, obesity, and arthritis status. Both black and white females had higher odds of asthma compared to white males (black OR=1.7, CI: 1.1-2.6, white OR=1.7, CI: 1.3-2.2). Black males had lower odds of arthritis (OR=0.8, CI: 0.6-0.9), while white females had higher odds (OR=1.3, CI: 1.2-1.4). Similarly, the odds of depression were lower among black males (OR=0.5, CI: 0.4-0.6), while white females had higher odds (OR=2.2, CI: 2.0-2.5). Income-related differences by race were observed for both HBP and obesity. Females had higher odds of HBP (black only) and obesity (<\$25k). Blacks had higher odds of HBP and obesity (annual incomes = \$25k).

DISCUSSION: Our results suggest that disparities in chronic medical conditions persist after accounting for the socio-demographic characteristics captured in this dataset. In the Mid-South, race and gender disparities in the top five chronic conditions were more prominent among higher-income rather than lower-income individuals.

Jepkemboi, Grace, PhD

Poster 27

UAB School of Education

Disclosure as Barrier for Health Services: Adolescents Living with HIV in Jamaica

Grace Jepkemboi, PhD; Pauline Jolly, PhD; Aung Maung, MB, BS, MPH; Ariel Appong; Alisha Wheeler, MA

PURPOSE: The purpose of this study was to facilitate adolescent and young adult knowledge understanding of personal sero status. In this presentation we examine the role of disclosure in care and treatment of HIV in adolescents and youth, ages 15 through 24 in Montego Bay, Jamaica. Fifty-five adolescents and young adults who acquired HIV Not via Mother-To-Child (MTC) Transmission and receiving treatment participated in this study.

METHODS: The researchers administered questionnaires and conducted one-on-one, in-depth interviews with twenty participant and conducted two focus groups of 6-8 participants.

RESULTS: Disclosure of their HIV status emerged as a common concern for the participants. 83.6% of the participants said they were not comfortable disclosing their HIV Status. Majority of participants felt more comfortable disclosing to Health service providers (94.5%). 61.8% felt comfortable sharing with family members and close relatives and 5.5 % felt comfortable sharing with a spouse. Comfortability level for sharing with friends were friends (27.3%), Boyfriend (50.9% and girlfriend (5.5%). Participants were least comfortable sharing their HIV status with individuals in the community such as teachers (3.6%), religious leaders (14.5%) and others 10.9%.

DISCUSSION: There are three categories of participants' willingness to disclose HIV status: amotivation, controlled motivation, or autonomous motivation. Participants in this study fall in the amotivation category. Amotivation is the lowest category of disclosure. Participants in this category had negative experiences or heard about negative experiences of disclosure from others, such as parents and caregivers disclosing their status to others without their permission. The fear associated with HIV in society would lead to the amotivated participant feeling a sense of judgment from the public. Some of the reasons participants in this study gave for not feeling comfortable disclosing their HIV status were fear of being judged (80.8%), rejection (78.8%), isolation (76.9%), being ridiculed (69.2%), being laughed at (65.4%), physical harm (28.8%). Other reasons were fear of telling their business to others in the family or community, fear of being scorned, disrespected and discrimination.

CONCLUSION: Disclosure is a major barrier for obtaining health services for many adolescents and young adults living with HIV in the Western Jamaica Region.

Jones, Percy, MDiv, MA**Poster 28****Payne Chapel A.M.E. Church****Grass-Roots Policy Change: An Innovative Community Engagement Approach to Addressing Health Disparities**

Percy Jones, MDiv, MA; Debby LaCruz Haralson, BA, MTS; Eboni Edmonson, MSPH, MBA

PURPOSE: Increasing wellness-promoting behavior is key to reducing negative outcomes in communities. As changing individual behavior is difficult, a comprehensive, coordinated strategy is needed. Municipal, school, and worksite policy interventions make healthy choices easier and are likely to achieve the greatest benefits.

METHODS: Using a community-engaged research approach, the Birmingham Area Community Coalition of the Gulf States Health Policy Center developed and is implementing a model in which community stakeholders - community- and faith-based organizations, local government institutions, healthcare professionals, policymakers, and residents in the local area - lead the assessment, development, and evaluation of policy recommendations that impact health outcomes in their local communities. Additionally, the impact of training coalition members received was also evaluated.

RESULTS: The Birmingham Area Community Coalition identified two policy areas - active transportation and school wellness - that is the focus of their work. The coalition developed and, with the aid of researchers and staff, tested a survey-based policy scan to gauge how employers and City government encourage active transportation among employees, residents, and visitors; and how Birmingham City Schools encourage wellness among their students. The policy scan will yield four outcomes: 1) an inventory of the policies currently in place to support active transportation and school wellness; 2) the extent to which these policies are implemented; 3) barriers to implementation of existing policies and 4) new policy initiatives. Additionally, training provided to coalition members has increased coalition member understanding of the policy process, outcomes evaluation, and how to develop a Community Action Plan. Coalition members also expressed high likelihood that they would use information learned through training to guide policy change efforts in the future.

DISCUSSION/CONCLUSIONS: Local policy change efforts are likely more effective when driven by diverse members of the local community. Success of the coalition to date is, in part, the result of intentional efforts to foster collaborations and partnerships, providing training to coalition members in key areas, and recognizing community members as experts. Informed by the results of the policy scan, coalition members will develop a Community Action Plan that bridges the gap between community and student wellness and grass-roots-driven policy change.

Jung, Seung Eun, PhD**Poster 29****University of Alabama, Department: Human Nutrition****Examining Whether Depressive Affect Mediates the Association between Self-Care Capacity and Nutritional Risk among Rural Older Adults: A Structural Equation Modeling Approach**

Seung Eun Jung, PhD, RD; Alex Bishop, PhD; Minjung Kim, PhD; Janice Hermann, PhD, RD; Giyeon Kim, PhD; Jeannine Lawrence, PhD, RD

PURPOSE: The objectives of this study were to examine the effects of self-care capacity and depressive effect on nutritional risk among community-dwelling rural older adults and to examine whether depressive affect mediated the relationship between functional capacity and nutritional risk.

METHODS: A convenience sample of 171 community-dwelling older adults, 65 years and above, residing in rural Oklahoma participated in this study. Self-care capacity was assessed using the Self-Care Capacity Scales from the Duke Older Americans Resources and Services Procedures. Depressive affect was measured with the Geriatric Depression Scale. Nutritional risk was measured using an adaptive short-form version of the Mini-Nutritional Assessment scale. Structural equation modeling was conducted to test a mediation model.

RESULTS: Model Chi-square and three other fit indices supported the hypothesized SEM model with adequate fit ($\chi^2(1)=1.87, p=0.17$; CFI=0.94; RMSEA=0.07; SRMR=0.03). The SEM analysis revealed a significant positive direct effect of functional capacity on nutritional risk ($\beta=0.136, p=0.041$). In addition, a significant negative relationship between functional capacity and depressive affect was observed ($\beta=-0.15, p=0.027$). Depressive affect had a significant negative effect on nutritional risk ($\beta=-0.268, p<0.01$). The effect of functional capacity on nutrition risk was partially mediated by depressive affect ($\beta=0.05, p=0.047$).

DISCUSSION: Findings highlight importance of emotional well-being in reducing nutritional risk among rural older adults, particularly among rural older adults with decreased ability to engage in self-care practices. The findings also suggest efforts to assist rural older adults to deal with negative emotional feelings should be emphasized in interventions to reduce nutritional health problems.

Kempf, Mirjam-Colette, MPH, PhD

Heritage I

UAB School of Public Health

Opt-Out HIV Testing Guidelines and Barriers of Implementation in Alabama

Kempf, Mirjam-Colette, MPH, PhD; Gardner, A; Ott, C, PhD; Azuero, A, PhD; Lanzi, R, PhD; Davies, S, PhD

In 2006, the Centers for Disease Control and Prevention (CDC) issued guidelines for “opt-out” HIV testing in healthcare settings for persons aged 13-64 years, in order to encourage the routine screening of patients without the requirements of prior risk assessment, separate signed informed consent and prevention counseling. The guidelines were generated in response to several facts, including: (a) the rate of new infections has remained largely unchanged at ~50,000 new cases/year for the last 10 years despite prevention efforts; (b) an estimated 20% of patients with HIV infection in the US do not know their HIV status; (c) most patients are diagnosed late in the course of HIV disease when treatment is less effective and mortality and costs are higher; and (d) the 20% of individuals with unknown HIV status are responsible for the majority of new infections annually. However, evidence regarding the uptake and implementation of the updated CDC HIV testing guidelines in medical practices around the country is still limited, making it difficult to evaluate the impact of the new guidelines on detection of new HIV infections and on patient loads in HIV clinics locally and throughout the US. To address fundamental gaps in knowledge regarding HIV testing practices and perceptions, the objective of this project was to assess patients’ HIV testing attitudes and behaviors, and to evaluate perceptions of providers regarding HIV testing guidelines at clinics affiliated with a large Federally Qualified Health Center (FQHC) in Alabama. In total 250 patients across three clinic sites have completed an iPad administrated survey identifying barriers to HIV testing. Qualitative interviews with providers are currently conducted. The contribution of the proposed research is significant since it is the first step in a continuum of research that is expected to lead to the development of a theory-based intervention to increase the implementation of routine HIV testing guidelines among primary care providers in the Deep South.

Kepper, Maura, MPH

Poster 30

Louisiana State University

Using Google Street View to Systematically Observe Neighborhood Environments at High Spatial Resolution: A Feasible and Reliable Method

Maura Kepper, MPH; Melinda Sothorn, PhD; Katherine Theall, PhD; Lauren Griffiths, MPH; Richard Scribner, MD, MPH; Tung-Sung Tseng, PhD; Paul Schaettle; Jessica Cwik, MSW; Erica Felker-Kantor, MSPH, MA; Stephanie Broyles, PhD

PURPOSE: Systematic social observation (SSO) methods traditionally measure neighborhoods at street-level and have been performed reliably using virtual applications to increase feasibility. Research indicates that collection at an even higher spatial resolution may elucidate better the health impact of neighborhood factors, but whether virtual applications can reliably capture neighborhood factors at the smallest geographic resolution (parcel-level) remains uncertain. We present a novel, parcel-level SSO methodology and assess whether this new method can be collected reliably using Google Street View.

METHODS: Multiple raters (n=5) observed 42 neighborhoods. Inter-rater reliability (observed agreement and kappa coefficient) was compared for four SSO methods: 1) street-level in-person; 2) street-level virtual; 3) parcel-level in-person; and 4) parcel-level virtual. Intra-rater reliability (observed agreement and kappa coefficient) was calculated to determine whether parcel-level methods produce results comparable to traditional street-level observation.

RESULTS: Substantial levels of inter-rater agreement were documented across all four methods; all methods have >70% of items with at least substantial agreement. Only physical decay showed higher levels of agreement (83% of items with >75% agreement) for direct versus virtual rating source. Intra-rater agreement comparing street- versus parcel-level methods resulted in observed agreement >75% for all but one item (90%).

DISCUSSION: Our results support the use of Google Street View as a reliable, feasible tool for performing SSO at the smallest geographic resolution. The validation of a new parcel-level method collected virtually may improve the assessment of neighborhood factors contributing to disparities in health behaviors and outcomes.

Kim, Giyeon, PhD

University of Alabama, Research Institute on Aging/Department of Psychology

Unequal Burden of Psychiatric Disorders: Geographic Disparities in Unmet Need for Mental Health Care among Racially/Ethnically Diverse Adults with Psychiatric Disorders

Giyeon Kim, PhD; Natalie Dautovich, PhD; Katy-Lauren Ford, MA; Daniel E. Jimenez, PhD; Benjamin Cook, PhD; Richard M. Allman, MD; Patricia Parmelee, PhD

PURPOSE: The main purpose of this paper is to examine geographic disparities in unmet need for mental health care among racially/ethnically diverse adults with psychiatric disorders in the United States.

METHODS: Drawn from the Collaborative Psychiatric Epidemiology Surveys (CPES; 2001-2003), adults with any past year psychiatric disorder diagnosis (n = 3,211) from diverse racial/ethnic backgrounds were selected for analyses. Using weighted data, descriptive analyses and logistic regression analyses were conducted.

RESULTS: Two thirds of the total sample had unmet mental health care need, which differed significantly by race/ethnicity ($p < .001$). Logistic regression analyses show regional variation of the effect of race/ethnicity in unmet need: after adjusting for covariates, Latinos in the South, Blacks and Latinos in the Midwest, and Latinos and Asians in the West had higher unmet need than non-Hispanic Whites, whereas no significant racial/ethnic effects were found in the Northeast.

CONCLUSIONS: Findings suggest that geographic region plays an important role in the sufficient use of mental health services among racial/ethnic minorities. Further research should elucidate reasons for geographic disparities in mental health care among racial/ethnic minority adults to reduce disparities.

Kolbo, Jerome R., PhD**Heritage I**

University of Southern Mississippi College of Health

Policies and Practices Affecting Adolescent Sexual Health in Mississippi

Jerome R. Kolbo, PhD; Joyee Esters, MS, MPH, CHES; Amy Arrington, JD; Susan Hrostowski, PhD, LMSW; Maggie West, BS

PURPOSE: In this study, Community Based Participatory Research (CBPR) was employed to examine policies and practices that affect the sexual health of adolescents in Forrest County, a southeast Mississippi community.

METHODS: Working together as partners applying CBPR, community stakeholders (including members of the Southeast Mississippi Rural Health Initiative) and researchers from The University of Southern Mississippi first established a Community Advisory Team (CAT), consisting of individuals representing nine sub-groups within the community (i.e., parents, adolescents, grandparents, education, health care, mental health, criminal justice, faith-based, and community-based organizations). The CAT provided the direction and oversight of the study (e.g., identification and recruitment of community members for each of the subgroups, creation of working definition of adolescent sexual health, development of instruments and procedures). Members of each subgroup were invited to participate in a series of three one-hour discussions. All data were recorded, compiled, and then shared with members of the CAT and all subgroups for interpretation and recommendations for future action plans.

RESULTS: To understand how policies and practices affect adolescent sexual health, a total of 99 community members achieved four main goals. First, community members described their perceptions of needs and problems related to adolescent sexual health. Second, they identified policies and practices believed to affect adolescent sexual health. Third, they shared views on their own roles as well as challenges, barriers, and needs that may hinder or facilitate those roles. Finally, community members generated recommendations for changes in policies and practices at local, state, and regional levels.

DISCUSSION: This study not only advances the knowledge of all participants on how policies and practices affect adolescent sexual health, but also the use of CBPR to generate evidence that is both relevant and actionable for the Forrest County community in order to create systems change. This study increases the capacity of the Forrest County community to positively affect policy and practices in order to achieve improved health outcomes among adolescents and other vulnerable populations. In addition, this study provides an example of a collaborative model that can be replicated in other communities across the state and region.

UAB

Family Caregiving Is Associated With Increased Stroke Risk among Highly Strained Caregivers

Sindhu Lakkur, PhD; William Haley, PhD; Virginia Howard, PhD; Suzanne Judd, PhD; David Roth, PhD

PURPOSE: As the American population ages, the number of family caregivers is expected to increase. Consequently, understanding the effects family caregiving has on the cardiovascular health of caregivers presents an important public health concern. Previous studies have observed associations between family caregiving and adverse cardiovascular health outcomes such as hypertension, coronary heart disease, and an increased Framingham Stroke Risk Score. However, the association between family caregiving and stroke risk is poorly understood. We examined the association between family caregiving and risk of incident stroke in the REasons for Geographic and Racial Differences in Stroke (REGARDS) study to test the hypotheses that 1) family caregivers have higher risk of stroke compared to non-caregivers and 2) strained caregivers have higher risk of stroke compared to non-caregivers.

METHODS: The REGARDS study enrolled African American and white participants, aged 45 and older, from 2003-2007. Participants were categorized as caregivers if they answered affirmatively to the baseline interview question, "Are you currently providing care on an ongoing basis to a family member with a chronic illness or disability?" Caregivers were asked their relationship to the care recipient and the amount of perceived physical and mental strain they associated with care (none, some, a lot). Using a propensity score matching procedure based on 15 demographic, lifestyle, and stroke risk factors, caregivers (n=2,691) were individually matched with non-caregivers (n=2,691). Hazard ratios (HRs) and 95% confidence intervals (95% CIs) for incident stroke risk were calculated using Cox proportional hazards models.

RESULTS: During an average 8-year follow up period, 97 (3.60%) caregivers and 98 (3.64%) matched non-caregivers had an incident stroke. Caregivers did not have a higher risk of stroke compared to non-caregivers (HR= 0.98, 95% CI= 0.74, 1.30). The HRs (95% CIs) for incident stroke risk were 1.31 (0.77, 2.23) for caregivers reporting no caregiving strain, 0.92 (0.62, 1.38) for moderate strain, and 2.76 (1.16, 6.58) for high strain.

CONCLUSION: We observed that perceived high caregiving strain, is associated with increased risk of stroke. This group of caregivers may need targeted support. Further studies examining the nuanced effects of caregiver burden on cardiovascular health are required.

UAB School of Public Health, Health Behavior

Engaging Adolescents in the Development of an Interactive Sexual Health Mobile-Based Game Designed to Promote Healthy Decisions

Robin G. Lanzi, PhD, MPH; Elysia Jordan; Tony Ma; Kaite Chang; Loral Patchen, PhD

INTERVENTION: Our research team developed **Sexually Active Adolescent Focused Education (SAAFE)**, via a user-centered approach (UCD), to deliver an interactive theory-driven, evidence-based sexual health mobile-based game that paired HIV/STI education with information on local health centers that offer comprehensive STI testing. Our UCD approach leveraged feedback from a product advisory group of African American males and females ages 15-21 to guide the concept, design, and development. The game concept, a dating simulation game, was selected by the product advisory group for design and development. Using the UCD approach, we successfully developed, implemented, and pilot tested usability and acceptance of this interactive sexual health mobile simulation game with African American males and females age 15-21.

FOCUS GROUP FINDINGS: Gaming Habits: Participants reported daily video game play and were more likely to purchase a game if it was popular among their friends. Participants typically played mobile games for 15-20 minutes; however, they would play up to two hours in order to win or finish a game. Young men were more likely to play games for longer periods of time. Sexual health topics: Participants reported their friends were aware of the risk of STIs when engaging in sexual activities, but did not care, especially when under the influence of drugs and alcohol. Participants also identified local slang terms for sexual behaviors to aid in the authenticity of game language. Game Concept; Character and Scenario Design: Participants selected the dating simulator game from four possible game concepts. They wanted to create a character drawn realistically that offered a range of different body types, skin tones, and ages.

GAME TESTING: Participants indicated that they: 1) learned from SAFFE, 2) they would recommend it to a friend, and 3) would consider downloading it to play with a confidence level of 90%.

CONCLUSION: We believe SAAFE has potential to significantly impact acquisition of HIV by leveraging a theory-driven, evidence-based gaming approach. It may also have the potential to affect other related areas, such as decreasing rates of other STIs and unintended pregnancy. We are currently initiating Phase 2 of the development in Birmingham and Washington, DC.

Lanzi, Robin G., PhD, MPH**Poster 32****UAB School of Public Health, Health Behavior****A Community Based Approach to Universal Screening for HIV and Hepatitis C Infection: Engaging the Deep South Network for Cancer Control's Community Health Advisors in the Development and Implementation Process**

Robin G. Lanzi, PhD, MPH; Mirjam-Colette Kempf, PhD, MPH; Claudia Hardy, MPA; Tara Bowman; Edward Partridge, MD; Michael Saag, MD

This Community Health Scholars study seeks to explore how HIV and Hepatitis C screening and treatment navigation can be integrated into the Deep South Network for Cancer Control's (DSNCC) existing cancer screening and treatment awareness efforts. We are building on the established community based infrastructure of the DSNCC that includes a Community Network Partnership (CNP) in each targeted rural county and urban area focused on cancer screening and treatment navigation. The local CNP includes trained Community Health Advisors as Research Partners. Our approach involves conducting focus groups and key informant interviews with existing Community Health Advisors (CHAs) as well as key community members from the DSNCC to assess feasibility, acceptability and determine best practices for implementation of universal screening for HIV and Hepatitis C in their work. Our approach of working with existing CHAs encourages the development of partnerships between community residents and UAB faculty, the Comprehensive Cancer Center, and the Center for AIDS Research in resources identification, problem solving, and community-based strategies. We conducted focus groups with CHAs in the DSNCC in 6 different counties (3 in Alabama and 3 in Mississippi, with a mix of urban and rural). Based on findings from these focus groups, we developed semi-structured interviews which were conducted in the same 6 counties with 5 key informants in each county (n=30 interviews). Key informants in each county include: a Medical Professional providing care for people living with HIV; Peer Educator (person living with HIV); Church Minister; Youth Advocate (School or Youth Center); and County Health Department (knowledgeable about HIV testing outreach activities in County). The semi-structured interviews probed key informants about feasibility and acceptability of HIV/Hepatitis C outreach activities and questions regarding knowledge, beliefs and attitudes towards testing for HIV and Hepatitis C. Given the significant impact that delayed screening, testing, and linkage to care has on the health of HIV and Hepatitis C infected individuals and the public, the development of community based/culturally sensitive methods that address barriers, particularly among minority populations and those serving them, is critical to achievement of the long term goal of decreasing HIV and Hepatitis C incidence rates.

Lee, Loretta T., PhD, MSN**Centennial II****UAB School of Nursing****Challenges to Healthy Eating Practices: A Qualitative Study of Non-Hispanic Black Men Living With Diabetes**

Loretta T. Lee, PhD; Amanda Lee Willig, PhD, RD; April Agne, MPH, BA; Julie Locher, PhD, MPH; Andrea Cherrington, MD, MPH

PURPOSE: The purpose of this study was to explore current dietary practices and perceived barriers to healthy eating in non-Hispanic black men with type 2 diabetes.

METHODS: Four 90-minute focus groups held in September and October, 2011 were led by a trained moderator with a written guide to facilitate discussion on dietary practices and barriers to healthy eating. Participants were recruited from the diabetes database at a public safety-net health system in Jefferson County, Alabama. Two-independent reviewers performed content analysis to identify major themes using a combined deductive and inductive approach.

RESULTS: There were 34 male participants aged 18 years and older. Mean years living with diabetes was 9.6 ± 5.9 . Sixty-two percent of participants perceived themselves to be in fair or poor health. Participants' self-reported eating practices did not always relate to hunger. Internal cues to eat included habit and response to emotions; and external cues to eat included media messaging, medication regimens, and work schedules. Men identified multiple barriers to healthy eating including hard-to-break habits, limited resources and availability of food at home and in neighborhood grocery stores, and perceived poor health-care professional communication.

CONCLUSION: Non-Hispanic black men acknowledged the importance of healthy eating as part of diabetes self-management, but reported various internal and external challenges that present barriers to healthy eating. Tailored strategies to overcome barriers to healthy eating among non-Hispanic black men should be developed and tested for their impact on diabetes self-management.

Lewis, Marquita, MPH, MS

Poster 33

UAB School of Education, Health Education/Promotion

The Mediating Effects of Access to Care on the Combination of Income and Education CHD Outcomes in The REGARDS Study

Marquita Lewis, MPH, MS; Yulia Khodneva, MD, PhD; Suzanne Judd, PhD; Michelle Martin, PhD; Angelia A. Paschal, PhD; Larrell L. Wilkinson, PhD, MSPH, CHES; Monika M. Safford, MD

PURPOSE: We have shown that individuals <65 years with the combination of low income and low education are at high risk of coronary heart disease (CHD). Access to healthcare is often cited as a major contributor to this relationship, but few studies have examined these relationships for combinations of income and education. We hypothesize that the association between income-education categories and incident CHD is mediated by access to care variables.

METHODS: We used data from 24,666 participants free of CHD at baseline in the national prospective Reasons for Geographic and Racial Differences in Stroke (REGARDS) cohort study of black and white participants aged >45 years recruited between 2003-2007. Mutually exclusive income-education groups were: low income (annual household income <\$35,000)/low education (< high school), low income/high education, high income/low education, and high income/high education. Access to care variables were defined as having health insurance, rural residence, and living in a health professional shortage area (HPSA). We first analyzed the association between income-education groups and access to care, followed by the association of access to care and CHD, and lastly the mediating effects of access to care on the association between income-education categories and CHD risk. Analysis was stratified by age 65.

RESULTS: A total of 1,046 events occurred over mean follow-up 6.4±2.3 years. Compared to participants with high income and education, all participants were less likely to have insurance. Those <65 with low income and education had greater odds of living in a rural community (OR 1.63 [95% CI 1.34-1.98]), in a HPSA (OR 1.13 [95% CI 0.97-1.33]), and have barriers to health care (OR 1.90 [95% CI 1.57-2.31]). There were no significant risk associated with access to care and CHD events for all participants. Also, there was no evidence of mediation by access to care variables.

CONCLUSION: Identified access to care variables did not mediate the relationship between low income and education and CHD observed in middle-aged REGARDS participants. Access to care as reflected in this study, may not play a major role in the higher risk for CHD in middle-aged adults living in low socioeconomic circumstances.

Lo, Alexander, MD, PhD

Centennial I

UAB School of Medicine, Emergency Medicine

Racial Disparities in Hospitalization of Older Adults with Heart Failure in the Emergency Department

Alexander Lo, MD, PhD; Raegan Durant, MD, MPH; John P. Donnelly, MSPH; Andrew Rundle, DrPH; Emily Levitan, ScD; Vera Bittner, MD, MSPH

PURPOSE: The burden of heart failure (HF) is disproportionately borne by older African Americans in whom higher rates of healthcare utilization and poorer outcomes have been reported. This study examines the racial disparities in emergency department (ED) care with particular focus on the role of race in hospital admission patterns among older (≥65 years) adults with HF in the ED.

METHODS: This study was a cross-sectional analysis using nationally-representative data from the National Hospital Ambulatory Medical Care Survey. We used multivariate analyses to compare hospitalization rates between African American and white older adults with HF.

RESULTS: Between 2001 and 2010, there were over 8.5 million visits by older adults with HF; 22% were "Black/African American," 52% were female and over 70% were hospitalized. Whites were more likely to be admitted (75% vs. 69%, p=0.007) overall. Those with higher ED clinical acuity at triage were significantly more likely to be admitted (74% vs 63%, p<0.001). However, an opposite trend was observed for African-Americans ≥65 years, with 61% admission in the higher acuity group and 71% in the lower acuity group. There was a statistically significant interaction between clinical acuity and race with regard to hospitalization (p=0.011). Further analysis indicated no discrepancies in clinical acuity ratings across race, or that African Americans were under-triaged.

CONCLUSION: Our results show a disparity in ED hospitalization patterns for HF by race in older adults, and raises questions regarding race-specific determinants of hospitalization. Given the national mandate of reducing HF readmissions, further studies on ED disposition decisions are critical.

Lyerly, Michael, MD**Poster 34****UAB School of Medicine, Neurology****Age Disparities in Acute Stroke Treatment: An Analysis of Six Years of US Hospital Discharges***Michael Lyerly, MD; Karen Albright, DO, MPH; Toby Gropen, MD; Katrina Booth, MD; Mark Harrigan, MD*

INTRODUCTION: For each decade beyond age 55, the risk of ischemic stroke more than doubles; however, studies suggest that the elderly may receive acute treatments less frequently. Recently, several trials have shown benefit for endovascular thrombectomy (IA). Many of these trials included elderly patients. It remains unclear if previously described age disparities will continue to be seen as strategies for acute stroke therapy evolve. The purpose of this analysis was to establish the proportion of older adults that received acute revascularization treatment prior to the publication of these new endovascular trials.

METHODS: We used the National Inpatient Sample to obtain data on primary ischemic stroke diagnosis discharges from US hospitals between 2006 to 2011. Among these discharges, utilization of IV tissue plasminogen activator (tPA) or endovascular thrombectomy was identified using procedure codes. Discharges were further classified by age ≥ 75 and year.

RESULTS: Over the 6 year period, nearly half (47%) of the 2,592,269 ischemic stroke discharges were age 75 or older. Despite this, they represented only 27% of tPA administrations and 34% of endovascular procedures. For all ischemic stroke discharges during this period, tPA was administered in a lower proportion of patients ≥ 75 years compared to those < 75 (3.7% [95% CI 3.5-4.0] vs. 4.5% [95% CI 4.3-4.8%]). Both tPA utilization and endovascular procedures increased each year for all age groups ($p < 0.001$).

CONCLUSIONS: Despite the fact that approximately half of stroke discharges were age 75 or older, they account for only about 30% of those receiving acute stroke therapies. As the US population ages, these findings raise concern that fewer older patients will receive the only acute therapies shown to improve functional outcome in ischemic stroke. Providers should be cognizant of potential age biases when selecting candidates for acute therapy and should continue to enroll the elderly in therapeutic trials.

McCaskill, Gina M., PhD**Poster 35****Birmingham VA Medical Center, Geriatrics****The Impact of Veteran Status on Life-Space Mobility among Older Black and White Men in the Deep South***Gina M. McCaskill, PhD; Patricia Sawyer, PhD; Kathryn L. Burgio, PhD; Richard Kennedy, MD; Courtney P. Williams MPH, Olivio J. Clay, PhD; Cynthia J. Brown, MD; Richard M. Allman, MD*

OBJECTIVE: To examine life-space mobility over 8.5 years among older Black and White male veterans and non-veterans in the Deep South.

DESIGN: A prospective longitudinal study of community-dwelling Black and White male adults aged > 65 years ($N = 501$; mean age = 74.9; 50% Black and 50% White) enrolled in the University of Alabama at Birmingham (UAB) Study of Aging. Data from baseline in-home assessments with follow-up telephone assessments of life-space mobility completed every 6 months were used in linear mixed-effects modeling analyses to examine life-space mobility trajectories. Main outcome measure: Life-space mobility

RESULTS: In comparison to veterans, nonveterans were more likely to be Black, single, and live in rural areas. They also reported lower income and education. Veterans had higher baseline life-space (73.7 vs 64.9 for non-veterans; $P < .001$). Race-veteran subgroup analyses revealed significant differences in demographics, comorbidity, cognition, and physical function. Relative to Black veterans, there were significantly greater declines in life-space trajectories for White non-veterans ($P = .009$), but not for White veterans ($P = .807$) nor Black non-veterans ($P = .633$). Mortality at 8.5 years was 43.5% for veterans and 49.5% for non-veterans ($P = .190$) with no significance differences by race-veteran status.

CONCLUSIONS: Veterans had significantly higher baseline life-space mobility. There were significantly greater declines in life-space trajectories for White non-veterans in comparison to other race-veteran subgroups. Black veterans and non-veterans did not have significantly different trajectories.

Moore, Justin X., MPH

Poster 36

School of Public Health, Epidemiology

Dietary Patterns and Cancer Mortality among African Americans and Whites in the REGARDS Cohort

Justin Xavier Moore, MPH; Tomi Akinyemiju, PhD; Suzanne Judd, PhD; Maria Pisu, PhD; Susan Lakoski MD;

PURPOSE: To determine whether dietary patterns measured at baseline among a large cohort of racially diverse, community-dwelling adults were associated with overall cancer mortality, and to examine whether there were differences by race.

METHODS: We performed a prospective cohort analysis among 22,041 participants from the REasons for Geographic and Racial Differences in Stroke (REGARDS) cohort. Dietary patterns were the primary exposures of interest and were determined via factor analysis among REGARDS participants: "Convenience" (Chinese and Mexican foods, pasta, pizza, other mixed dishes), "Plant-based" (fruits, vegetables), "Southern" (added fats, fried foods, organ meats, sugar-sweetened beverages), "Sweets/Fats" (sugary foods) and "Alcohol/Salads" (alcohol, green-leafy vegetables, salad dressing). Using Cox regression, we examined the association between quartiles of dietary pattern and cancer mortality, adjusted for sociodemographics, health behaviors, and comorbidities. We then performed analysis stratified by race.

RESULTS: Among eligible REGARDS participants there were 14,724 White (66.8%) and 7,317 African American (33.2%) participants. There were a total of 873 cancer deaths over the 10-year observation period: 582 (66.7%) among Whites and 291 (33.3%) among African Americans. Among all participants, and after adjustment for sociodemographics, health behaviors, and comorbidities both the "Convenience" (HR: 0.79; 95% CI: 0.64 - 0.98) and "Plant-based" (HR: 0.80; 95% CI: 0.65 - 0.99) dietary patterns were associated with reduced risk of cancer mortality, while the "Southern" (HR: 1.75; 95% CI: 1.38 - 2.23) dietary pattern was associated with a nearly with a 2-fold increased risk of cancer mortality. Among African Americans alone, the "Southern" dietary pattern was associated with cancer mortality in unadjusted analysis (HR: 2.07; 95% CI: 1.18 - 3.65), however this association attenuated after adjustment for confounders. Among Whites, and after adjustment for confounders, greater adherence to the "Southern" (HR: 1.69; 95% CI: 1.28 - 2.23) dietary pattern increased risk of cancer mortality, while the "Convenience" (HR: 0.73; 95% CI: 0.56 - 0.94) and "Plant-based" (HR: 0.72; 95% CI: 0.55 - 0.93) dietary patterns were associated with up to a 28% reduced risk of cancer mortality.

CONCLUSION: In the REGARDS cohort, and specifically among Whites, the "Southern" diet increased the risk of cancer mortality, while the "Convenience" and "Plant-based" diets reduced the risk of cancer mortality.

Mothershed, Essynce R., BS

Poster 37

UAB College of Arts & Sciences, Biology

Quadruple Negative Breast Cancer: A More Aggressive Subset of Triple Negative Breast Cancer

Essynce Mothershed, BS; Melissa Davis, PhD; Shweta Tripathi, PhD; Windy Dean-Colomb, MD, PhD; Clayton Yates, PhD

PURPOSE: Despite current standard of care for treatment for Triple Negative Breast Cancer (TNBC), many patients still die from this disease. Quadruple-negative tumors, which are TN tumors that lack androgen receptor (AR), represent a more aggressive subtype of TNBC, however the molecular features are not well understood.

METHODS: Immunohistochemical (IHC) analysis of estrogen receptor (ER), progesterone receptor (PR), HER2, and (AR) was determined in 205 primary and 145 cases of recurrent/metastatic patients. Expression was correlated with a panel of 25 cancer-related proteins using IHC.

RESULTS: We observed that 76% (63 of 83) of primary TNBC tumors and 76% (159 of 210) of recurrent/metastatic TNBC tumors are QNBC. Bivariate fit analysis demonstrated that QNBC significantly ($p < .03$) correlated with younger aged patients at initial biopsy compared to AR positive TNBC patients. Intra-individual analysis of recurrent/metastatic QN tumors demonstrated a significant difference ($p < 0.05$) between ER and AR statuses in both locally recurrent/metastatic tumors. Multivariate analysis of all biopsies with a panel of additional cancer-related genes, demonstrated that pairwise gene correlations differ by molecular profile: Luminal (ER+/AR+), TN (ER-), TN AR-positive (ER-/AR+), and QN (ER-/AR-). The Luminal BC subtype showed 11 highly significant positive gene correlations, with PTEN-EGFR ($p < 0.0001$) as the most significant pairs. AR-positive TN tumors expressed 15 significant correlations, with PIK3CA-p53 ($p < 0.0001$) as the most significant pair. QN tumors displayed 15 significant pairwise gene correlations that differed from AR positive tumors, with EGFR-TOPO1 ($p < 0.0001$) as the most significant pair.

CONCLUSIONS: Standard treatment of BC relies on reliable assessment by IHC analysis of ER, PR, and HER2. Our analyses suggest that the heterogeneity of TNBC is at least partially associated with the presence or absence of AR expression, suggesting that QNBC should be considered as a clinically relevant BC subtype. IHC analysis of AR appears to be a practical assay to determine the most aggressive TNBC subtypes and identifies tumors that could benefit from available targeted therapies.

Mukherjee, Angana, MS**Poster 38****Troy University Department of Biological & Environmental Sciences****Foxi3: A Sly Regulator of Bone Development, Promotes Prostate Cancer***Angana Mukherjee, MS; Oluwasina G. Williams; Shaniece Theodore; Jacqueline D. Jones*

PURPOSE: Prostate cancer is the abnormal growth of cells in the prostate gland, and is the second leading cause of deaths among men in the United States. Studies have shown that prostate cancer is more common among African American men and 100% of men that die from this malignancy have bone involvement. It is believed that the rich bone microenvironment help tumor cells to take on a bone phenotype, termed osteomimicry, thus permitting its growth at an ectopic location. Of the many cells resident in the bone, myeloid cells secrete various soluble factors that contribute to the high turnover rate of cells and molecular processes of bone development. Of particular interest, foxi-3, a forkhead family transcription factor is critical in bone development and embryogenesis. However, its role in prostate cancer, has not been explored. Therefore, we hypothesized that foxi3 is a key factor in promoting prostate cancer progression to the bone and modulation of foxi3 expression is associated with FGF signaling.

METHODS: To investigate the clinical role of foxi3, we analyzed its expression and localization in human prostate cancer tissue and cell lines. To further study the effect of FGF on foxi3 high expressing cells (PC3 and C42b), we performed the following assays: proliferation, migration and invasion, with or without FGF treatment.

RESULTS: Interestingly, in human tissue specimens there is a significant increase in foxi3 expression as cancer becomes more aggressive ($p < 0.01$). Moreover, we see a 300-fold increase in foxi3 expression in C42B prostate cancer cells, a bone metastatic cell line, in comparison to DU-145 cells, which are derived from the brain. Furthermore, FGF8 stimulation demonstrates higher proliferative, migratory and invasive behavior in high foxi3 expressing cells.

CONCLUSION: Together, these data demonstrate a synergistic role of foxi3 and FGF8 in prostate cancer bone metastases.

Mullins, Monique, MPH**Poster 39****Jefferson County Department of Public Health****Community Matters 20/20: Assessment, Visioning and Planning for a Healthy Jefferson County, AL***Monique Mullins, MPH; Bryn Manzella, MPH; Greg Townsend, MPPM; Richard Sinsky, DrPH; Elisabeth Welty, MPH; Devon Sims, MPH; Carlos Torres-Sanchez, MS*

PURPOSE: Jefferson County, Alabama's last county-wide health assessment and planning process was in 2007. The Jefferson County Department of Health (JCDH) coordinated a new county-wide health assessment and planning initiative branded Community Matters 20/20 to receive feedback from the community, to measure the impact of changes from the previous process and to identify next steps and direction for community health improvement.

METHODS: The Community Matters 20/20 process is utilizing the Mobilizing for Action through Planning and Partnerships (MAPP) framework, a community-owned process that involves broad participation of the local public health system and community members and uses qualitative and quantitative data from four assessments to inform the development, implementation and evaluation of a community health improvement planning (CHIP).

RESULTS: Based on the results from the Community Health Assessment, five strategic issues (priority areas) were chosen to form the basis of a new CHIP. Work groups representing community leaders and health experts were convened for each of the five priority areas to develop a five year work plan containing goals, strategies, tactics, timelines and lead partners for accomplishing the strategic issues, resulting in the Jefferson County, Alabama Work Plan November 2014 - November 2019, a key component of the Community Health Improvement Plan for Jefferson County, Alabama.

DISCUSSION: Implementation of the Community Health Improvement Plan for Jefferson County, Alabama began in November 2014 and will continue until November 2019. The CHIP work plans will be monitored and modified throughout the next five years to determine how well Jefferson County, AL is addressing the five strategic issues.

UAB School of Medicine, Surgery

Racial Differences in Perioperative Outcomes among Males in Cardiovascular Disease Related Surgery: Analysis of the American College of Surgeons-National Surgical Quality Improvement Program Database

Margaux Mustian, MD; Melanie Morris, MD; Bradford Jackson, PhD; Daniel Chu, MD; Selwyn Vickers, MD; Sejong Bae, PhD

INTRODUCTION: The incidence of patients requiring surgical intervention for cardiovascular disease (CVD) is increasing, with improving mortality rates. Racial disparities exist in healthcare. We examined the association of race with perioperative outcome differences in CVD related surgeries, focusing on male patients due to their higher prevalence of cardiovascular disease.

METHODS: We queried National Surgical Quality Improvement Program Database from 2005-2014 for non-Hispanic black, white, and Asian males undergoing cardiovascular operations: Carotid Endarterectomy, Coronary Artery Bypass Grafting, Valve repair/replacement, Lower extremity bypass, and Abdominal Aortic Aneurysm. Our primary outcome of interest was 30 day mortality. Secondary outcomes included: prolonged post-op length of stay (LOS), surgical site infection (SSI), operative re-intervention, 30 day readmissions, blood transfusions, stroke, and myocardial infarction. Odds ratios (OR) with 95% confidence limits (95%CL) were estimated using multivariable logistic regression analyses to examine associations between race and perioperative outcomes adjusting for age, BMI, current smoking status, alcohol use, ASA classification, pre-operative hematocrit and comorbidity variables: diabetes, COPD, CHF, MI, angina, PCI, previous cardiac surgery, hypertension requiring medication and year of diagnosis.

RESULTS: A total of 5,569(6%) black, 82,215(92%) white, and 1,270(2%) Asian male patients underwent cardiovascular operations. In the multivariable adjusted models, black males had significantly higher odds compared to white males for both 30 day readmission (OR=1.6; 95%CL: 1.1, 2.3) and 30 day mortality (OR=1.6; 1.2, 2.1). Both black and Asian males had higher odds of prolonged LOS (Black OR=1.7, 95%CL: 1.6, 1.9, Asian OR=1.5, 95%CL: 1.3, 1.8) and blood transfusions (Black OR=1.3, 95%CL: 1.1, 1.5; Asian OR=1.3, 95%CL: 1.0, 1.8). Asian males had higher adjusted odds of 30 day complications for MI (OR=2.1, 95%CL: 1.2, 3.8). Asian males had lower adjusted odds (OR=0.5, 95%CL: 0.2, 1.0) of SSI, while black males had higher adjusted odds (OR=1.4, 95%CL: 1.1, 1.7) compared to white males.

CONCLUSIONS: Race is independently associated with adverse outcomes including mortality, 30-day readmission rates, and prolonged postoperative length of stay, blood transfusion, myocardial infarction, and surgical site infections. Postoperative stroke or operative reintervention were not associated with race. These findings highlight the need for continued efforts to reduce racial disparities in postoperative outcomes among men with CVD.

LSU School of Public Health

Assessing Awareness of the Hollygrove Market and Farm among Low-Income Residents.

Henry Nuss, PhD; Meg Skizim, MPH; Blaha Ondrej

PURPOSE: Urban food deserts in the United States are often located in low socioeconomic status communities with residents experiencing low food security and dietary quality. Local farmers' markets are becoming increasingly popular as a way to address these inequities, providing communities with fresh, affordable produce. Yet, there is little empirical evidence that farmers' markets are utilized by the community they are intended to serve. One reason for this may be a lack of awareness within the community. Located in an urban food desert in New Orleans, Louisiana, the Hollygrove Market and Farm (HMF) sells local produce and offers purchasing incentives to supplemental nutrition assistance program (SNAP) participants. The purpose of this study is to assess Hollygrove residents' use and awareness the HMF and purchasing incentives.

METHODS: A needs assessment was conducted among residents in the Hollygrove neighborhood via a 23-item questionnaire. Study coordinators and community volunteers distributed questionnaires to Hollygrove residents at community events such as neighborhood movie nights and church services. Respondents also rated what they believed to be the most effective communication and marketing methods for relaying food and nutrition information, such as social media, websites, promotional cards and flyers.

RESULTS: Data were collected for 50 adults (male=25; female=25; black=40; white=9), age 44.6±15.6 years mostly low-income. Just over half (n=27, 54%) reported ever attending the HMF. Nearly two-thirds of low-income participants had never attended a farmers' market as compared to 27% of mid/high-income ($\chi^2=6.2$, $df=1$, $p=0.01$). More than three-quarters of the sample (77.1%) did not know that most of the farmers' markets in the city, including HMF, offer discounts for LPC purchases. Almost all (n=49) participants reported having at least one social media account and that they would be receptive to a web-based, social media awareness campaign.

CONCLUSIONS: Our results show that Hollygrove residents were likely not utilizing the HMF due to a lack of awareness that it existed or that they could purchase food from the HMF at a discount via SNAP. Based on respondent ratings, our needs assessment clearly establishes an urgency for a web-based, social media awareness campaign.

Oates, Gabriela, PhD**Poster 42****UAB School of Medicine, Preventive Medicine****Impact of Socio-Environmental Factors on Initial Pulmonary Function Test (PFT) In Pediatric Patients with Cystic Fibrosis**

Gabriela Oates, PhD; Lacreacia J. Britton, MSN; Stephanie Gamble, RRT; Cathy Mims, BSN; Robert Oster, PhD; Hector H. Gutierrez, MD; William T. Harris, MD

INTRODUCTION: We recently identified a significant impact of paternal education and second-hand smoke on infant pulmonary function in cystic fibrosis (CF). In this study, we analyze the effect of socio-environmental factors on first spirometry at age 6.

METHODS: Socio-environmental and clinical data of CF patients (N=92) at the University of Alabama at Birmingham/Children's of Alabama CF Center were evaluated retrospectively. Spirometric measures at first PFT were compared to normative (Wang, FEV1%: normal = 100) and CF-specific (Kulich, FEVCF%: normal = 50) equations. Lung function was presented as a continuous variable. Clinical measures included genotype ($\Delta F508$ homozygous/other), *P. aeruginosa* ever (no/yes), daily cough (none, occasional, daily), missed appointments (0, 1, =2), and hospitalizations in 12 months. Socio-environmental measures included maternal education, paternal education, annual household income, exposure to tobacco smoke (yes/no), and health insurance (private/public).

RESULTS: The study population was 50% female, 63% $\Delta F508$ homozygous. Mean age at initial PFT was 6 years. Mean lung function at initial PFT was FEV1 91.4% (FEVCF 53.4%). Exposure to tobacco smoke significantly decreased FEV1 (73.8 ± 3.0 vs. 96.5 ± 2.1 , $p < .0001$) and CF-normative FEVCF (35.4 ± 4.6 vs. 58.5 ± 3.0 , $p < .0001$). Children exposed to tobacco smoke had 4.4 higher odds of suboptimal CF lung function than children not exposed. Tobacco smoke exposure was present in 41% of children with below-average lung function, compared to 14% in those with above-average lung function ($p < .005$). Children from low-income families (<\$30,000/year) had increased smoke exposure (odds ratio 3.0, $p < .0001$) compared to children from higher-income families. Low paternal and maternal education (= high school) each were associated with increased smoke exposure (odds ratio 3.7 and 3.9, respectively; $p < .01$ for both). In a multiple regression model, tobacco smoke exposure, *P. aeruginosa*, low paternal education (= high school), and low annual household income (<\$30,000/year) decreased lung function (FEV1%) by 20%, 9.6%, 6%, and 2%, respectively.

CONCLUSION: Socio-environmental factors significantly impact lung function in pediatric CF, with smoke exposure being the primary determinant of pulmonary disease trajectory. As smoking is disproportionately prevalent in impoverished families with low education, these findings affirm the importance of socioeconomic factors for CF lung function and point to smoking cessation as an essential therapeutic adjunct in CF care.

Owens, Michael, BS, BA**Poster 43****UAB College of Arts and Sciences, Psychology****Objective and Subjective Pain Sensitivity Assessments in Individuals with HIV: Differences According to Virologic Suppression**

Michael Owens, BS, BA; Jessica Merlin, MD MBA; Lindsey Yessick; Rahul Gaini; Rachael Rainey; Sonya Health, MD; Burel Goodin, PhD

PURPOSE: Initial animal studies suggest that the envelope protein GP120, found on HIV's surface, facilitates endogenous processing of painful stimuli. Additionally, the HIV virus causes chronic inflammation, which is worse in individuals with detectable viral loads than in those who are virologically suppressed. Active viremia could induce heightened pain sensitivity and exaggerated pain states like hyperalgesia and allodynia, which could predispose individuals with HIV to develop chronic pain. We hypothesized that individuals with HIV and detectable viral loads would be more sensitive to painful stimuli compared to virologically suppressed individuals.

METHODS: HIV-infected patients without chronic pain were recruited from a local clinic that provides comprehensive medical services to adults with HIV. Participants completed a quantitative sensory testing protocol to objectively assess sensitivity to painful stimuli including noxious heat and induced ischemia. Patients also completed the self-report Pain Sensitivity Questionnaire as a subjective assessment. Most recently obtained viral load count was collected from medical records, and viral load was considered to be detectable if the count was ≥ 50 copies/mL of blood.

RESULTS: Forty-two HIV-infected individuals without chronic pain were recruited. Median CD4+ T-cell count was 619 cells/mm³, and 8 (19%) had a detectable viral load (Mean = 45,101 copies/mL). Participants with detectable viral loads displayed significantly lower mean heat pain threshold ($F_{1,36} = 5.40$, $p = .026$), mean heat pain tolerance ($F_{1,36} = 12.54$, $p = .001$), and mean ischemic pain tolerance ($F_{1,36} = 3.92$, $p = .05$) compared to participants who were virologically suppressed. There was no significant difference between the groups on the self-report Pain Sensitivity Questionnaire ($F_{1,36} = 0.35$, $p = .559$).

CONCLUSIONS: Responses to objective measures suggest that patients with HIV and detectable viral loads demonstrate increased sensitivity to painful heat and ischemia compared to patients with HIV who were virologically suppressed. However, responses to the self-report measure of pain sensitivity suggest that patients with HIV and detectable viral loads may not subjectively appreciate any increased pain sensitivity. Further research is needed to determine whether increased pain sensitivity is a risk factor for the development of chronic pain disorders in patients with HIV and detectable viral loads.

Park, Soohyun, MS, MA

Poster 44

University of Alabama College Arts & Humanities

The Effect of Reasons of Immigration on Mental Disorders among Older Asian and Latino Immigrants: Racial/Ethnic Differences Existed

Soohyun Park, MA; Giyeon Kim, PhD

OBJECTIVES: Despite the importance of reasons of immigration on mental health among immigrants, there has been limited research on the relationship between reasons for immigration and mental health among immigrants, especially racially/ethnically diverse elderly immigrant population. Objectives of the present study were 1) to classify reasons of immigration and 2) to examine racial/ethnic differences in the effect of reasons of immigration on mental health among older Asian and Latino immigrants in U.S.

METHODS: Drawn from the National Latino and Asian American Study (NLASS), we selected Asians (n = 376) and Latinos (n = 498) aged 55 or older living in the United States. Our outcome variable was past year psychiatric disorders measured with the DSM-IV and ICD-10. Exploratory factor analysis was conducted to group reasons of immigration. Multiple linear regression analysis was used to examine the relationship between reasons of immigration and psychiatric disorders in the Asian and Latino immigrant groups.

RESULTS: Results from factor analysis showed that there were three clusters of reasons of immigration: (a) 'non-voluntary (situational) reason' relating to political/persecute situation in their country of origin; (b) 'semi-voluntary reason' relating to family issues; and (c) 'voluntary (intrinsic) reason' relating to seeking better opportunities for job, children's future, and education. Results from multiple regression analysis revealed racial/ethnic differences in the relationship between three reasons of immigration and past year psychiatric disorders. Whereas no significant relationship was found among older Latino immigrants, there was a significant relationship among older Asian immigrants ($p < .05$). This suggests that older Asian immigrants having greater levels of 'voluntary reason' were less likely to have past year psychiatric disorder.

CONCLUSIONS: We found evidence for racial/ethnic differences in the relationship between immigrant reasons and mental health among older immigrants. Findings suggest that understanding qualitative reasons of immigration could help address older immigrants' mental health issues, which may in turn help develop intervention programs. Clinical implications are discussed.

Paschal, Angelia M., PhD

Poster 45

University of Alabama Department: Health Science

Dietary Behaviors and Physical Activity in Aging African American Adults at Risk for Heart Disease in Rural Alabama

Jermaine Mitchell, PhD, CSCS; Angelia Paschal, PhD; Seung Jung; Georgiana Logan, MS; Antonio Gardner, MS; Theresa Mince

INTRODUCTION: Heart disease is the leading cause of death among African American (AA) adults, with mortality rates being highest in the south. Inadequate physical activity and poor diets have been linked to increased risk for heart disease in rural, disadvantaged communities. Nonetheless, limited information exists about effective, culturally-appropriate interventions for AA in rural communities. The purpose of this study was to assess fruit & vegetable (f/v) intake, physical activity (PA), and fitness in a sample of rural African American adults at-risk for heart disease, and to examine what could be done to address these issues according to their perspectives.

METHODS: Surveys were conducted with a convenience sample of 50 AA who were at least 50 years old and physician-referred to a community-based nutrition education and physical activity program in Marion, AL. The survey included BRFSS and NHANES questions about fruit & vegetable consumption, the International Physical Activity Questionnaire, and demographic items. Fitness appraisals were conducted with participants to assess baseline height, weight, aerobic capacity, strength, and other fitness indicators. An interview guide was used to explore barriers and facilitators to adequate f/v intake and PA and to obtain information on helpful strategies. SPSS was used to manage and analyze the data. Themes were identified in the qualitative information.

RESULTS: Study results indicated that recommended levels of f/v intake, PA, and fitness status were problematic in this sample. Various factors were associated with these health behaviors and outcomes. Helpful barriers and facilitators for appropriate levels of f/v intake and PA based on the participants' input were identified.

DISCUSSION: Heart disease affects many aging minority adults in rural communities. Effective culturally-tailored interventions are needed which include input from the community. This study has implications for further research, health promotion strategies, and policy recommendations.

Pope, Caitlin, MA**Poster 46**

UAB College of Arts and Science, Psychology

The Effects of Combination tDCS and Speed of Processing Training on Simulated Driving Behaviour in Adults Living with HIV*Caitlin Pope, MA; Despina Stavrinou, PhD; Pariya Fazeli, PhD*

PURPOSE: African Americans not only represent almost half of the individuals living with HIV in the US, but also account for almost half of new infections yearly. Among those living with HIV, by 2020, 70% of the individuals living with HIV are expected to be 50 and older. With half of the individuals experiencing some form of cognitive deficit related to the disease, interventions to preserve mobility and quality of life are necessary. Previous research suggests that poorer cognitive functioning associated with HIV is related to poorer driving outcomes, especially compared to individuals without HIV. Interventions such as speed of processing (SOP) training and non-invasive brain stimulation (e.g. transcranial direct current stimulation [tDCS]) have independently shown significant improvement in simulated driving behavior, as well as decreased crash risk and increased mobility. This study investigated the relationship between combined tDCS and SOP training on simulated driving performance in individuals 50 years and older with HIV.

METHODS: Twenty-eight HIV+ older adults ($M=54.34$, $SD=3.29$, 85.7% African American) were randomly assigned to either the active or sham tDCS training group ($n=14$ per condition), both which received SOP training. Training groups were matched on demographics (e.g. age, gender, race, and education) and baseline processing speed and received computerized speed of processing training. Driving performance (number of lane deviations, traffic violations, collisions, and speed) was assessed with a STISIM driving simulator before and after the tDCS/cognitive training program. Using univariate analysis of covariance, group differences in driving performance after training were analyzed.

RESULTS: After controlling for baseline performance, the active tDCS/SOP training group committed less overall lane deviations ($M=6.31$, $SD=2.93$) than the sham group ($M=10.26$, $SD=2.93$) at post-test ($p=.002$). Similarly, the active group had a slower overall average driving speed ($M=27.62$, $SD=3.58$) than the sham group ($M=31.71$, $SD=3.58$) at post-test ($p=.006$). No significant effect of group was found for number of traffic violations and collisions.

DISCUSSION/CONCLUSIONS: Combination tDCS and SOP training was found to significantly improve simulated driving in individuals with HIV. Preliminary results support the use of non-invasive brain stimulation in conjunction with speed of processing training for at-risk, driving populations such as HIV.

Ramos, Mary Dioise, MS**Poster 47****Barriers Influencing Health-Seeking Behavior among Immigrant Elderly Women: A Qualitative Study***Mary Dioise Ramos, MS, RN*

INTRODUCTION: Moving to a new country creates a stressful life event for the elderly. Utilization of health care services, access, and assimilation in the United States health care delivery system can be very challenging for elderly minorities. While the health status among Filipinos have been documented (Lauderdale & Rathouz, 2004; Tan, 2015; Tsoh et al., 2015), very limited research exists in determining the issues influencing health-seeking behaviors among elderly immigrants. The purpose of this study was to investigate the perceptions of immigrant elderly women's health-seeking behavior. This study also aimed to discover the perceived issues that facilitate accessibility and acceptability of health care services among the immigrant elderly women.

METHOD(S): Phenomenological research design was used to provide an in-depth understanding of elderly Filipino women's experiences in seeking health care services. Because the focus of the research is related to the perceptions of the immigrant elderly Filipino women living in Georgia, and because limited research exists about this phenomenon, an interpretive, qualitative study was deemed most appropriate.

RESULTS: Filipino elderly women reported many positive aspects in seeking health care services in the United States. They identified interactions with health care providers and access to health care services as being pleasant satisfying experiences. However, they were all worried that these type of services will no longer be available for them in the near future because of the health care delivery system changes. After coding data and grouping into clusters, four themes emerged: 1) fear of health care system changes, 2) difficulty in communication and intimidation, 3) spiritual beliefs and cultural understanding, and 4) dependency on family and support networks.

DISCUSSION & CONCLUSIONS: The study findings signal the need to create effective and appropriate strategies for increasing the elderly Filipino's access to health care services. Understanding the factors influencing health-seeking behaviors of older Filipino adults will enable health care providers to create more equitable and culturally-tailored health services for this vulnerable population in improving health outcomes.

UMMC School of Health Related Professions

The University of Mississippi Medical Center (UMMC) Community Health Advocacy (CHA) Training Program: Review and Evaluation

Penny T. Rogers, DHA; Deborah Minor, PharmD; Christy Morgan, PhD; Warren May, PhD

INTRODUCTION: Countless obstacles prevent Mississippi from relief of multiple health disparities. These growing disparities in cardiovascular disease (CVD) risk factors, including obesity, hypertension, and diabetes, prompted UMMC to join with others in creating a certified CHA training program in 2011. The goal of this program is to improve knowledge and awareness of health risk factors as well as health literacy among participants, enabling them to be advocates for health in their communities. Since inception, approximately 1800 individuals from churches, civic organizations, and other groups across the state have been trained. The purpose of this project was to review the participant demographics and evaluate the effectiveness of this training program, based upon responses provided by pre- and post-training questionnaires.

METHODS: A convenience sample of the first three years (January 2011 - January 2015) of our program was chosen for review. Approximately 350 pre-/post-training questionnaires were selected from an aggregate of 1800 participants. The questionnaire contains ten demographic questions including age, gender, race, household information and education. The remaining twenty questions are knowledge-based, in direct correlation to the training curriculum. Quantitative and qualitative data were analyzed, utilizing SPSS v22.

RESULTS: Of those reviewed, the majority of participants were from faith-based and health-related groups, 34% and 28% respectively, and female (78%). Most participants were white (59%), and in the 20-29 year-old age group (46%), with only 14% > age 50. In comparing pre-/post-training responses, a significant improvement was noted in 8 of the 20 knowledge-based questions, including from each of the targeted content areas (nutrition-, hypertension-, diabetes-, obesity-based). There was no significant change identified in the 12 remaining questions.

CONCLUSIONS: Demographic results reveal that increased efforts are needed to engage a more diversified racial, gender, and aged participant group. Based on responses to the knowledge-based questions, necessary changes were identified for both the questionnaire as well as the education materials and training curriculum. Through this review, our program can improve in both impact and outreach.

Albany State University College of Sciences and Health Professions, Natural and Forensic Sciences

DNA Specific Sensor for Prostate Cancer Biomarkers

Amir Saheb, PhD; Mira Josowicz, PhD; Stephanie Patterson

African American Men are 65% more likely to develop prostate cancer and twice as likely to die of prostate cancer, than are Caucasian American Males. Altered gene expression is hypothesized to play a key role in this health disparity. A prostate cancer biomarker with improved specificity relative to PSA is a public health priority. Currently, early detection techniques for prostate cancer include prostate-specific antigen (PSA) testing and digital rectal exam (DRE). However DRE is invasive, and both tests have low sensitivity and specificity. To combat this health disparity, the novel detection of epigenetic modifications to genes correlating with prostate cancer is sought. These hypermethylated genes have higher sensitivity and specificity than PSA and DRE, and will be detected non-invasively in biofluids with an electrochemical sensor. The sensor works by first immobilizing single-stranded (ss) DNA on the sensor surface. This probe DNA can then hybridize with complementary target ssDNA from a sample. The hybridization event changes the surface charge of the sensor, yielding analytically useful electrical signals. The performance of this miniaturized DNA detector was optimized with respect to hybridization time, temperature, and concentration of the target. It was also evaluated with respect to selectivity, sensitivity, and reproducibility. These results are significant for their possible use as a screening test for hypermethylated DNA sequences.

Shields Tarwater, Sara

Poster 50

University of South Alabama College of Medicine

Identifying and Addressing Unmet Mental Health Needs at a Student Run Free Clinic

Sara Shields Tarwater; William Tillman, University of South Alabama College of Medicine;
Marjorie E. Scaffa, Department of Occupational Therapy, University of South Alabama

PURPOSE: Despite the substantial health burden that homeless person's face, barriers to medical and mental health care result in substantial unmet healthcare needs in this population. In order to ensure a patient-centered approach to care, this health needs assessment evaluated the unmet medical and mental health needs of the homeless patient population served by the University of South Alabama Student Run Free Clinic (SRFC).

METHOD: 100 homeless adults were interviewed to gather demographic information, prevalence of common mental health symptoms, and unmet mental healthcare needs. Interview data was analyzed by a focus group of SFRC medical student leaders and faculty to prioritize patient-reported health needs and identify areas requiring further data analysis.

RESULTS: One-third of respondents reported needing mental healthcare services within the past year, with 29% of those reporting that they had not received the mental health care they needed. The most frequent mental symptoms reported were depression (54%), feeling stressed often (51%), and fatigue (50%). Of note, 23% and 19% of respondents reported violent thoughts and suicidal thoughts, respectively. A first stage depression screen was positive in 40%. In an optional open response question, 21 respondents (n=23) stated that they would like group or individual counseling services offered at the SRFC.

DISCUSSION: Whether or not they are actively seeking mental health services, the majority of respondents report experiencing at least one mental health symptom in the past month. These data support routine screening of all SRFC patients for depression, suicidal, and homicidal risk as well as expansion of mental health services to address self-reported mental health needs.

Slaughter, Sunnetta "Sunny"

Poster 51

How Health Disparities and Social Determinants Increase Barriers for Ignored Human Trafficking Populations

Sunnetta "Sunny" Slaughter, Federally Certified Law Enforcement Instructor

PURPOSE: Human Trafficking is one of the largest criminal enterprises in the world involving the force, fraud and coercion of human beings as a **commodity** for profit. A victim can be sold, traded and exploited on multiple levels over and over again. The trafficking of vulnerable populations includes minorities, homeless, veterans, formerly incarcerated and LGBTQ (children and adults). These victims have been largely misunderstood, ignored, and silenced, as populations impacted by sex, labor and organ exploitation. Misidentification by medical and mental health professionals of vulnerable populations, who are also trafficking victims adds to the existing barriers of access to culturally and linguistically appropriate trauma informed care. The narrowed lens of professionals is further exacerbated by trauma and vulnerabilities of social determinants of health which go unmeasured and unmet by society as a whole.

METHODS: Having worked closely with the vulnerable populations in various capacities, we have had specific discussions about the lack of culturally responsive medical and mental health care, social norms and biases, and how their socioeconomic status played a role in how, by whom and the type of services they received or didn't receive contributed to their continued victimization.

RESULTS: Human Trafficking will never be fully eradicated unless and until the totality of vulnerable populations are recognized as potential victims. Medical and mental health professionals play a significant role in reducing the barriers of health disparities, by documenting the presence of suspected or actual victimization, and by indicating social determinants of health which further add to a trafficking victims' ability to receive the long-term care that is necessary to transition from victim to survivor.

DISCUSSION: The importance of medical and mental health facilities developing and implementing progressive policies, cultural and linguistically appropriate processes for responsive delivery of care, and ethically sound practices for human trafficking victimization. Institutions should focus on providing training, education and awareness that speaks to the totality of vulnerable populations as potential human trafficking victims and the economic impact on individuals, families and communities when vulnerable populations are ignored, misidentified and go unserved.

UAB School of Health Professions, Nutrition Sciences

Amount, Source and Quality of Nut Intake among Overweight and Obese African-American Women Living in Rural Alabama and Mississippi, 2011-2013

Samara Sterling, MS; Brenda Bertrand, PhD; Suzanne Judd, PhD; Monica Baskin, PhD

INTRODUCTION: Obesity continues to be a problem in the United States and is particularly prevalent among rural residents and African-American women in the Southeast. Nut intake has been previously shown to decrease risk for obesity and obesity-related chronic diseases. However, the quantity and quality of nut intake among African-American women in the rural South remains unclear. We examined the amount, source, and quality of nut consumption among overweight and obese African-American women in rural Alabama and Mississippi.

METHODS: Two 24-hour dietary recalls were administered using the NCI Automated Self-Administered system. Mann-Whitney tests were used to compare added sugar and sodium intake between nut consumers and non-consumers, and t-tests examined the difference in mean nut, added sugar, and sodium intake between stand-alone and incorporated nut sources. Linear regression models were used to determine the relationship between nut intake and the intake of added sugar and sodium. An alpha level of 0.05 was used for all statistical tests.

RESULTS: Forty-two percent of women in this study were nut consumers; however, only 16% of nut consumers met the FDA recommendation for nut intake. The main source of nut consumption was from incorporated sources like cakes, cookies, and candies (65%), which were significantly higher in both added sugar ($p < 0.0001$) and sodium ($p < 0.0001$) and lower in nut quantity ($p < 0.0001$) than stand-alone sources. Nut consumers also reported a higher daily intake of added sugar ($p = 0.004$) and sodium ($p = 0.04$) than non-consumers.

CONCLUSION: Insufficient quantity and suboptimal quality of nut intake may impede the health benefits of nut consumption among African-American women in the rural South. Nutrition intervention strategies should be directed toward increasing the intake of plain nuts from stand-alone sources rather than sweetened or salty nut foods.

Szaflarski, Magdalena, PhD

Centennial II

UAB College of Arts & Humanities, Sociology

Drug Use, Abuse, and Dependence in Immigrant and Racial-Ethnic Minority Populations

Magdalena Szaflarski, PhD; Lisa A. Cubbins, PhD; Daniel H. Klepinger, PhD

PURPOSE: Past research indicates that when most immigrants enter the United States, their risk of drug abuse is lower than US-natives', even among those of the same race-ethnicity. However, the longer immigrants stay, the greater are their risks for drug abuse. This study examines the patterns of drug use and abuse/dependence by nativity and racial-ethnic origin and potential explanatory factors (e.g., acculturation, discrimination).

METHODS: Data are derived from Waves 1 and 2 of the National Epidemiological Survey on Alcohol and Related Conditions, a representative sample of US adults ($N = 34,653$). Dependent variables include marijuana and other illicit drug use and DSM-IV-based diagnosis of drug abuse/dependence during last 12 months. Independent variables include nativity, years in US, and race-ethnicity (African, European, Asian/Pacific Islander, Mexican, Puerto Rican, other Hispanic/Latino); standardized measures of acculturation, social ties, discrimination, and stress; and, sociodemographic covariates. A series of bivariate profit models (one with sample selection) are estimated.

RESULTS: Unadjusted models show a strong association between nativity and race-ethnicity and drug use, but not abuse/dependence. After adjusting for other factors, the estimated effects of nativity and/or race-ethnicity become non-significant for drug use. The effect of race-ethnicity remains significant for use of drugs other than cannabis/marijuana, but the effects are due primarily to a large effect of African origin. Among explanatory factors, stress and discrimination are consistently associated with a higher likelihood of drug use or abuse/dependence. Further, a greater same race-ethnic orientation is associated with a higher risk of using cannabis/marijuana or drug abuse/dependence. English language preference is associated with a greater likelihood of using cannabis/marijuana while perceived discrimination in health care has the opposite effect.

DISCUSSION/CONCLUSIONS: This study extends past research on the relationship between nativity, race-ethnicity, and drug use and drug use disorders by using a large national sample, multiple racial-ethnic groups, and a broad range of explanatory factors. Stress and discrimination, in particular, appear to explain the unadjusted associations between nativity and race-ethnicity and drug use and drug abuse/dependence. Scaling up system-level and cultural interventions to reduce discrimination and stress experienced by minorities may help to reduce disparities in drug use and drug use disorders.

Thompson, Wendy, DrPH

Poster 53

Jackson State University School of Social Work

The Use of Complementary and Alternative Medicine in Conjunction with Pharmacological Medications for Pain Crisis in Sickle Cell Disease Patients*Wendy Thompson, DrPH*

Sickle cell disease (SCD), estimated to affect nearly 100,000 Americans, is the most common inherited blood disorder in the United States and the estimated cost of care for sickle cell disease is approximately \$1.1 billion dollars annually. This illness can cause both acute and chronic pain. Complementary Alternative Methods (CAM) play an important function in pain management and are becoming increasingly popular in the United States. The aim of this study was to determine the extent and effectiveness of CAM use for pain control among adult African American patients in rural Mississippi with SCD. A total of 227 participants with SCD between the ages of 18 to 65 years participated in a questionnaire survey that collected demographic information, severity of disease, and the use and effectiveness of CAM for the management of pain. Two hundred eight (92%) patients admitted to using at least one type of CAM. The three most common types of CAM used were prayer (87%), relaxation techniques (63%), and massage (56%). While all the types of CAM were found to have some effectiveness in pain management, prayer was found to be the most effective. Use of CAM was not significantly associated with number of painful episodes treated at home ($p=0.056$). Multiple logistic regression showed that marital status was significantly associated with relaxation techniques ($p=0.044$), and age and level of education were significantly associated with use of prayer ($p=0.008$ and $p=0.004$, respectively). In addition, gender, level of education and household income were significantly different between CAM users and non-CAM users. Our study shows that CAM use is common among adult patients with SCD. Further, well designed prospective studies are needed to develop best practices that emphasize an optimized balance of conventional and evidence-based CAM therapies. A Day treatment center is also recommended for Mississippi because of the "Emergency Room" visits that are being made by these patients due to pain, and the cost that is being accrued as a result of the pain.

Tripathi, Shweta, PhD

Arlington

Tuskegee University College Arts and Sciences, Biology

Quadruple Negative Breast Cancer (QNBC) are More Prevalent in African American Women with an Enriched Immune Signature*Shweta Tripathi, PhD, Raymond Hughley, Melissa Davis, Windy D. Colomb, Stephan Amb, William E. Grizzle, Clayton Yates*

PURPOSE: Triple Negative Breast Cancer (TNBC) are tumors which lack ER, PR, and HER2 expression. Although this subtype comprises only 10-20% of invasive breast cancers, African-American women are three times more likely to be diagnosed with this subtype compared to whites and Hispanics. Recent evidence has demonstrated that there is distinct heterogeneity within the TN subtype, however further identification of markers are needed to improve the clinical management of these patients.

METHODS & RESULTS: Analyzing the updated TCGA dataset, we observed that African American express AR at lower rates than Caucasian women across all subtypes, however TNBC tumors had the most significant reduction in AR expression. A trend of lower AR expression in African American women was observed in additional publically available datasets as validation to the TCGA data, which totals 300 TNBC patients with the quadruple-negative phenotype (ER-negative, PR negative, HER2-negative and AR-negative), and QNBC patient had lower survival and increase metastasis compared to TNBC patients. To further determine if protein expression of AR corrects with gene expression data, we performed immunohistochemistry for AR expression in the BMaP generated Breast Cancer TMA. Digital scoring of AR expression demonstrated that African American women with TNBC have lower AR in both the cytoplasm and the nucleus compared to whites. Lastly, we determined that the low expression of AR was associated with a significant increase in immune-related markers PD-L1, CCL5 and CTL-4 in both African American and Caucasian patients. However we still observed increased expression of PDL1 and CCL5 in African American tumors.

CONCLUSIONS: These observations suggest that AR expression should be included with traditionally used markers, and QNBC is a prognostic marker for breast cancer patients. We also highlight that AR negative tumors have a unique immune signature that could benefit from targeted immune therapy.

Voinea-Griffin, Andreea, DDS, MBA, MSHA, PhD Candidate Poster 54

Provider Participation in the Texas First Dental Home Program in Dallas County: Four-year Success

Andreea Voinea-Griffin, DDS, MBA, MSHA; Eric Solomon, DDS, MA

PURPOSE: Texas Medicaid Agency implemented the First Dental Home Program (FDH) to decrease the incidence of early childhood caries. The program offers a generous bundled payment to registered general and pediatric dentists for multiple preventive visits for Medicaid children between 6 and 35 months of age. This work evaluated the uptake of the program in the Dallas County at 4 years since its implementation.

METHODS: Analyses were conducted on the characteristics of FDH providers and of the areas in which their services were provided. Demographic characteristics of FDH providers in Dallas County were obtained by matching the FDH provider list with the Texas Board of Dental Examiners database. Data on FDH services was summarized by zip code and matched to a ARCGIS Business Analyst 2015, a public database containing a variety of demographic data.

RESULTS: FDH providers were compared to non-providing dentists in Dallas County. FDH providers were significantly more likely to be younger (40.8 versus 47.1) and licensed fewer years (10.7 versus 17.7) than other providers in the County. A majority of FDH providers were women (51.5%) and their rate of participation in the program was higher as well (27.8% versus 16.1%). The number of FDH providers, patients and visits were summed by zip code. Zip codes in Dallas County where FDH services were provided were compared to non-service zip codes. Overall, 53 of the 85 zip codes in Dallas County (62.4%) had FDH services delivered. Fourteen of these zip codes had between 20 and 46 FDH providers, and 18 zip codes had between 1,019 and 4,225 FDH patients. Zip codes with at least 1,000 FDH patient visits were significantly more likely to have lower socio-economic characteristics, a higher percentage of Hispanic population (49.0% versus 29.8%) and a higher percentage of persons less than 20 years old (30.5% versus 25.8%).

DISCUSSION/CONCLUSIONS: The uptake of the FDH program is satisfactory although differences by provider characteristic and population demographics were found. Most of the Medicaid providers enrolled in the program, a testimony of the program acceptance by the dental community. Future research to evaluate patient acceptance and program outcome is needed.

Wahl, Tyler S., MD

Arlington

UAB School of Medicine, General Surgery

Enhanced Recovery after Surgery Reduces Disparities in Length of Stay for Colorectal Patients

Tyler S. Wahl, MD; Allison Gullick, MSPH; Jacob Mills, MD; Laura A. Graham, MPH; Joshua Richman, MD PhD; Melanie Morris, MD; Mary Hawn, MD, MPH; Jamie Cannon, MD; Jeffrey Simmons, MD; Daniel Chu, MD

PURPOSE: Enhanced Recovery After Surgery (ERAS) is a multimodal pathway that reduces post-operative length of stay (LOS) after elective colorectal surgery. Racial disparities in post-operative LOS have been observed between black and white patients after major surgery. Our study hypothesizes that ERAS may reduce racial disparities in LOS among black patients undergoing elective colorectal surgery.

METHODS: A retrospective, single-institution ERAS database was used to identify all patients undergoing ERAS from January to October 2015. ERAS patients were matched 1:1 by age, gender, race, and procedure with Pre-ERAS patients from 2010-14. The American College of Surgeon's (ACS) National Surgical Quality Improvement Project (NSQIP) Risk Calculator was used to calculate an expected LOS for each patient. Pre-ERAS and ERAS patients were stratified by race. Paired t-tests and McNemar tests determined differences with generalized linear models estimating adjusted LOS. Primary outcome included observed post-operative LOS with secondary outcomes including the observed-to-expected difference (OED) in LOS.

RESULTS: From 258 patients included for analysis (129 patients from each cohort), 57% and 29.8% were male and black, respectively, with a mean age of 54.9 (±13.9). Major indications for surgery include malignancy (43%), inflammatory bowel disease (15%), hernia/ostomy (14%), infectious (9%), and benign (9%). The majority of procedures performed include ostomy revision/reversal (23%), low anterior resection/abdominoperineal resection (19%), ileocecectomy (18%), partial colectomy (18%), and subtotal/total proctocolectomy (12%). Compared to Pre-ERAS patients, ERAS patients experienced clinically significant reductions in mean LOS (4.7 vs. 6.7 days, P<0.001) and OED (-0.4 vs. 1.7 days, P<0.001). In the Pre-ERAS cohort, black patients had a significantly longer mean LOS (8 vs. 3.9 days, P<0.01) and OED (2.9 vs. -1 days, P<0.001) compared to ERAS patients. Similarly, Pre-ERAS whites had clinically longer mean LOS (6.1 vs. 5, P=0.1) and OED (1.1 vs. -0.2, P=0.02). After adjusting for differences in indication, operative approach, ostomy formation and operative time, clinically significant reductions in LOS remained among both white and black patients after ERAS.

CONCLUSION: Racial disparities in post-operative LOS after elective colorectal surgery are reduced with ERAS. Further investigations are necessary to identify the individual ERAS processes that may drive these effects.

Walker, Victoria, MPH**Heritage I****The Mississippi State Department of Health****Practical Applications of a Community Training on Public Health and Public Health Research***Candice Green, MPH; Tanya Funchess, DHA, MPH, MSM; Mangle Shanks, MBA; Crystal Butler-Williams, MPH*

PURPOSE: The Community Research Fellows Training (CRFT) is a 16-week training on public health and research to prepare community members for community-based participatory research (CBPR). CBPR has been used successfully to address health disparities by creating an equal partnership between the community and researchers. The Community Research Fellows project is a post training activity that allows the fellows to have an opportunity to utilize the knowledge and skills gained from CRFT by responding to a request for proposal to implement a project in their community.

METHODS: Post fellows formed project teams that aligned with similar health interests. Each team was required to attend a four hour workshop, Problem Solving for a Better Health, to help them conceptualize and frame their project into a six month time frame. Each proposal submitted had to demonstrate a SMART objective, a developed work plan and timeline, a target population, and address a health disparity in their community. Each proposal was reviewed by four public health professionals that provided feedback to the project teams.

RESULTS: Two projects were selected for funding. Step N2 Life was a physical fitness and nutrition program designed to promote a healthy lifestyle among African American women who are at risk of developing hypertension or already diagnosed. Health screenings were conducted pre and post program to note any changes in the participations. Pre and post test were given to determine any change in knowledge and attitude throughout the program. Women Interested in Teen Health (WITH) was an education awareness campaign to increase the number of middle school aged children enrolled into abstinence plus education by informing parents about opting-in. The WITH project team worked closely with a Parent Teacher Student Association (PTSA) to collect qualitative and quantitative data on how to best inform parents about opting their children in an abstinence plus education program. From the information gathered, materials were developed to be disseminated to parents of a local middle school.

DISCUSSIONS/CONCLUSIONS: Despite limited funding and time frame constraints, Step N2 Life and WITH were implemented with success. When provided the proper resources, partnerships, and necessary training, community members can implement creative and insightful interventions catered to their community needs. The Community Research Fellows projects allowed for the fellows to deepen their partnerships and create a network of public health and research training community members who can serve as agents of change.

Wang, Sylvia Y., BA**Poster 55****UAB Social & Behavioral Sciences, Psychology****Correlates of Suicidal Ideation among Racially/Ethnically Diverse Elders***Sylvia Y. Wang; Katy L. Ford; Giyeon Kim*

OBJECTIVES: Given the limited research on racial/ethnic differences in suicidal ideation among older adults, the present study sought to examine the prevalence and correlates of suicidal ideation among diverse elders.

METHODS: Drawn from the Collaborative Psychiatric Epidemiology Surveys (CPES), 4815 adults aged 55 or older were selected for analysis. Logistic regression analyses were conducted to test the relation between background characteristics and suicidal ideation across four major racial/ethnic groups (Non-Hispanic Whites [NHW], Blacks, Asians, and Latinos).

RESULTS: The prevalence of lifetime suicidal ideation varied significantly across racial/ethnic and age groups. NHWs had the highest rate (9.7%) of suicidal ideation, whereas Blacks had the lowest (6.2%). Adults aged from 55 to 64 had the highest prevalence of suicidal ideation (11.1%) compared to other age groups. There were racial/ethnic specific correlates. For NHWs, low income, being divorced, separated, or widowed, having higher education, and higher number of mood and anxiety disorders increased odds of having suicidal ideation. For Blacks, none of the background characteristics significantly predicted suicidal ideation. For Asians, higher income increased odds of having suicidal ideation. For Latinos, younger age, higher number of chronic diseases, and higher number of mood and anxiety disorders increased odds of having suicidal ideation.

CONCLUSIONS: We found evidence for racial/ethnic and age variations in the prevalence and correlates of suicidal behaviors among elders. Observed racial/ethnic-specific correlates of suicidal behaviors could be used to develop culturally appropriate prevention/intervention strategies to reduce suicide among diverse elders.

Wen, Huacong, MS

Poster 56

UAB School of Health Professions, Physical Therapy

Racial Differences in Weight Gain after Spinal Cord Injury

Huacong Wen, MS; Yin He, MA; Scott C. Bickel, PT, PhD; Yuying Chen, MD, PhD

PURPOSE: Investigate potential racial differences in weight change after spinal cord injury (SCI) over a 5 year period.

RESEARCH DESIGN: Multicenter longitudinal study

PARTICIPANTS: 437 participants with SCI from 11 SCI Model Systems Centers, who were enrolled in the National SCI Database and completed 2 follow-up assessments within 5 years between October, 2006 and September, 2015.

METHODS: Participants were classified into 3 groups: non-Hispanic white (n=313), non-Hispanic black (n=81), and Hispanic (n=43). Body mass index (BMI, kg/m²) was calculated at each follow-up assessment, based on self-reported height (m²) and measured weight (kg). Neurological data, obtained at discharge from the initial hospital care, was categorized into: tetraplegia with American Spinal Injury Association Impairment Scale (AIS) A, B, or C (Tetra ABC); paraplegia with AIS A, B, or C (Para ABC); and AIS D and E (AIS DE). Analysis of variance was used to compare changes in weight and BMI across 3 racial groups, after stratification by neurological impairment and duration of injury (DOI). Paired-T test was used to compare the change in weight and BMI within each racial group over 5 years.

RESULTS: There were no significant differences in age, gender, DOI, marital status, and neurological impairment among racial groups. Non-Hispanic white was better educated, more likely to be employed, and taller than the non-Hispanic black and Hispanic groups. The average weight of the 437 participants increased from 81.76±20.60 kg to 83.38±21.21 kg over 5 years (P=0.005), while BMI increased from 26.35±6.27 kg/m² to 26.96±6.40 kg/m² (P=0.002). There was virtually no change over 5 years for non-Hispanic black (0.01±3.69 kg/m², P=1.00), but a significant increase for non-Hispanic white (0.57±3.90 kg/m², P=0.01) and Hispanics (2.03±5.67 kg/m², P=0.02). As compared with other races, the Hispanics had the greatest increase in BMI, particularly among those with more severe injuries, Tetra ABC (4.30±7.02 kg/m², P=0.002), BMI<25kg/m² at the first assessment (4.30±6.11 kg/m², P=0.002), and during the first 5 years of injury (3.98±5.82 kg/m², P=0.0003).

CONCLUSIONS: Racial difference should be considered while managing weight gain after SCI, especially among those more severe injuries, underweight and normal BMI, and during the early years of injury.

Weragoda, Janaka, MD

Poster 57

UAB School of Health Professions, Nutrition sciences

Racial Disparities in the Consumption of Fruits, Vegetables and Fiber among Women at Risk for Developing Cervical Cancer

Janaka Weragoda, MD; Suguna Badiga, PhD; Michelle Moses Chambers, MS; Chandrika Piyathilake, PhD

PURPOSE: Fruits and vegetables (FVs) are important sources of cancer protective nutrients such as folate. Our previous studies have shown that higher circulating concentrations of folate is associated with natural history of HR-HPV infections, causative agent for developing higher grades of cervical intraepithelial neoplasia (CIN 2+) that are precursor lesions for cervical cancer. Even though a few studies have reported a positive association between FV intake and risk of CIN 2+, the modifying effects of race on these associations are undocumented. Therefore, the purpose of the study was to examine the modifying effects of race on the association between FVs and fiber intake and risk of being positive for any HR-HPV infection, or most carcinogenic HPV genotypes (16/18) and risk of being diagnosed with CIN 2+.

METHODS: Study population consisted of 986 women with an equal distribution of African American (AA) and Caucasian American (CA) women diagnosed with histologically confirmed CIN lesions. A validated Berkley Nutrition Services short screener was used to assess the FV intake and fiber intake. Median servings of FVs and fiber intake were used as cut offs in all analysis.

RESULTS: In the overall population, only 13.5% consumed the recommended 5 servings of FVs/day and 12.9% consumed a minimum recommendation of 20g of fiber/day. Median servings of FVs was 3/day and the median fiber intake was 14g/day. Logistic regression analysis revealed that there was no significant racial difference in the servings of FVs/day. However, the fiber intake was significantly higher in CA compared to AAs (P<0.0001). Only higher intake of FVs was associated with significantly lower risk of being diagnosed with CIN 2+ (OR= 0.6, 95%CI= 0.4-0.9, p=0.04). Analysis stratified by race indicated that this association held true only for CAs. There were no significant associations between FVs and fiber intake and risk of any HR-HPV infection or HPV 16/18.

CONCLUSIONS: We observed that even with similar intake of FVs, CAs appeared to have beneficial effects in preventing CIN 2+ compared to AAs. Racial differences in the types of FVs consumed and methods of preparation of vegetables may explain these results.

White, Jason, MS**Poster 58**

Tuskegee University, Research Center for Minority Institutions

Kaiso: A Key Transcriptome Architect in the Aggressiveness of TMPRSS2 Fusion Negative Prostate Cancer in African American Men

Jason White, MS; Melissa Davis, PhD; Clayton Yates, PhD

PURPOSE: Men of African ancestry (AA) disproportionately have a higher incidence and mortality of prostate cancer (PCa) compared to other racial groups. Although socio-economic factors have been shown to contribute to this disparity, the sum of those factors fails to adequately explain the magnitude of the impact. Multiple studies have demonstrated that genetic/biologic differences between racial groups contribute more significantly to increased PCa aggressiveness. Our lab has shown that Kaiso, a transcriptional repressor within the BTB/POZ zinc-finger protein family, has higher expression rates in AA PCa tumors and regulates a number of PCa linked miRNAs. Additionally, our lab was the first to define a unique miRNA profile in AA patients. Understanding the ability of Kaiso to regulate AA associated miRNAs will generate transcriptome networks that would identify potential targets for therapeutic interventions.

METHODS: Insilco analysis of microarray and Kaiso ChIP-seq data generated in our lab, demonstrated that miR-152 and 376b were silenced by DNA methylation in AA patients, and contain Kaiso methyl binding sites. To determine the potential transcriptome networks we used MirTarbase to identify experimentally validated mRNA targets. To further define AA associated networks, we compared these findings to the Wallace et. al. (GSE6956) Gene Expression Omnibus (GEO) data set.

RESULTS: Experimentally validated targets of mir-152 include: DNA methyltransferase-1 (DNMT1), Insulin-like Growth Factor 1 Receptor (IGF1R), Insulin Receptor Substrate 1 (IRS1) and Transforming Growth Factor α (TGF α). Targets of mir-376b include: Autophagy Related 4C, Cysteine Peptidase (ATG4C) and Beclin 1, Autophagy Related (BECN1). Only ATG4C showed significantly ($P = .0137$) differential expression in AA tumors.

CONCLUSION: Kaiso may be able to enhance PCa aggressiveness through the regulation of miR-376b. Overexpression of miR-376b, in breast cancer, has been shown to significantly diminish cellular autophagy, thus promoting tumor growth. To date, no studies have been conducted to confirm or refute these findings in PCa. We will pursue validation of the specific mRNA targets of miR-152 and miR-376b using RNA-seq and Bi-Mir capture. Discovering Kaiso's role in the heightened aggressiveness of AA PCa will generate key insights into the biological underpinnings of the disease's progression and help to establish clinically viable interventions.

Williams, Beverly Rosa, PhD**University**

UAB School of Medicine, Gerontology/Geriatrics/Palliative Care

Racial Differences in Processes of Care at End of Life in VA Medical Centers: Planned Secondary Analysis of Data from the BEACON Trial

Beverly R. Williams, PhD; Nicholas J. Dionne-Odom, PhD, RN; David T. Redden, PhD; Hyunjin Noh, PhD; Patricia S. Goode, MD; Elizabeth Kvale, MD; Marie Bakitas, DNSc, CRNP; Amos F. Bailey, MD; Kathryn L. Burgio, PhD

PURPOSE: Racial differences exist for a number of health conditions, services, and outcomes, including end-of-life (EOL) care. The objective of this analysis was to examine differences in processes of care in the last 7 days of life between African American and white inpatients to determine what, if any, differences are present.

METHODS: We conducted a secondary analysis of data collected in the "Best Practices for End-of-Life Care for Our Nation's Veterans" (BEACON) trial (conducted 2005-2011). We abstracted data from the medical records of 4,891 inpatient decedents in 6 Veterans Administration Medical Centers. Multivariable analyses were conducted to examine the relationship between race and each of 18 EOL processes of care controlling for patient characteristics, study site, year of death, and whether the observation was pre- or post-intervention.

RESULTS: The sample consisted of 1,690 African American patients (34.6%) and 3,201 white patients (65.4%). African Americans were less likely to have: DNR orders (odds ratio (OR):0.67; $p=.004$), advance directives (OR:0.71; $p=.023$), active opioid orders (OR:0.64, $p=.0008$), opioid medications administered (OR:0.61, $p=.004$), benzodiazepine orders (OR:0.68, $p<.0001$), benzodiazepines administered (OR:0.61, $p<.0001$); antipsychotics administered (OR:0.73, $p=.004$); and steroids administered (OR:0.76, $p=0.020$). Racial differences were not found for other processes of care, including palliative care consultation, pastoral care, antipsychotic and steroid orders, and location of death.

DISCUSSION/CONCLUSIONS: Racial differences exist in some but not all aspects of EOL care. Further study is needed to understand the extent to which racial differences reflect different patient needs and preferences and whether interventions are needed to reduce disparities in patient/family education or access to quality EOL care.

University of Alabama

Limited English Proficiency and Psychological Distress among Elderly Asian Americans: Mental Health Disparities within Asian Population*Joo Young Yang; Giyeon Kim, PhD*

PURPOSE: Limited English proficiency (LEP) is prevalent among elderly Asians, a rapidly growing population in the US. Previous studies reported that LEP is associated with poorer physical and mental health, but limited research is available for elderly Asian population's mental health and LEP. Moreover, the Asian elderly population's heterogeneity has not been explored extensively. The purpose of this study is to examine the relationship between LEP and mental health and to explore the heterogeneity of the relation across different Asian subgroups and nativity.

METHODS: Using the 2011-2012 California Health Interview Survey (CHIS), we selected Asian adults aged 60 and older ($n=1,515$) from five major Asian subgroups to test the relationship between English proficiency and psychological distress. Then we examined whether this relationship varies across five different Asian subgroups (Chinese $n=414$, Japanese $n=190$, Korean $n=384$, Filipino $n=163$, and Vietnamese $n=364$) and by nativity (US born $n=225$ vs. Foreign-born $n=1290$). Subjects were divided into two groups: English proficient (EP) and limited English proficiency (LEP). Psychological distress was measured with the K6 (Kessler et al., 2002). Using hierarchical regression analysis, covariates (age, gender, marital status, educational attainment, annual income, and number of chronic diseases, Asian subgroups, and nativity) were entered in the first step, and LEP status in the second step. In the last step, the interactions of LEP by Asian subgroups were entered.

RESULTS: Results showed that elderly Asians with limited English proficiency were significantly more likely than their English proficient peers to suffer psychological distress ($p=.002$). While there was no significant variation of psychological distress by nativity ($p=.949$), there was a significant variability of psychological distress across five Asian subcategories ($p=.005$).

CONCLUSION: This study suggests that generalization of the Asian population can misrepresent health burden in specific Asian categories, recommending ethnically focused approach in healthcare system.

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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.

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Gulf States Health Policy Center

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