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10 a.m. – 3 p.m.

Columbia Convention
Center | Columbia, SC

13TH ANNUAL JAMES E. CLYBURN HEALTH EQUITY LECTURE

POSTER SESSION & ABSTRACTS

“Taking Action to Advance Health
Equity: Addressing Poverty and the Social
Determinants of Health”



Part of the 13th Annual
James E. Clyburn Health Equity Lecture

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JAMES E. CLYBURN HEALTH EQUITY LECTURE

COLUMBIA CONVENTION CENTER, COLUMBIA, SC

This year's Poster Session and Abstracts booklet will showcase health disparities research and practice being conducted by faculty, postdoctoral research fellows, staff, and students at the University of South Carolina, as well as members from other academic institutions, local community-based agencies, and the SC Department of Health and Environmental Control. The 13th Annual James E. Clyburn Health Equity Lecture Poster Session is an opportunity for individuals to share their health disparities research and practice with others and address this year's theme: "Taking Action to Advance Health Equity: Addressing Poverty and the Social Determinants of Health".

Funding Source: The poster session is supported in part by SC Department of Health and Environmental Control, Office of Minority Health, Arnold School of Public Health, and Department of Health Services Policy and Management. The content of the abstract booklet is solely the responsibility of the contributing authors and does not necessarily represent the official views of the sponsoring entities.

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PO1 **Intersectionality in Cancer Care: A Systematic Review of Current Research and Future Directions**

Author(s): Joseph Kelly-Brown, BS; Elizabeth Palmer Kelly, PhD; Samilia Obeng-Gyasi, MD, MPH; JC Chen, MD; Timothy M Pawlik, MD, MPH, MTS, PhD

SUBMITTED BY: Joe Kelly

Medical Student

University of South Carolina School of Medicine - Columbia

BACKGROUND. To date, research on disparities in cancer outcomes has focused on individual or isolated marginalized identities. This “parceling” of identities lacks external validity when applied to the lived, complex experiences of cancer patients. Intersectionality posits that social categorizations and personal identities are interconnected, rather than separate entities of a person.

OBJECTIVES. The objective of the current review was to synthesize the literature on intersectionality relative to disparities across the cancer care continuum. A model to support future intersectional cancer research was proposed.

METHODS. Web-based discovery services and discipline-specific databases were queried for both peer-reviewed and gray literature. Study screening and data extraction were facilitated through the Covidence software platform.

RESULTS. Among 497 screened studies, 28 met study inclusion criteria. Most articles were peer-reviewed empirical studies (n=22) that focused on pre-diagnosis/screening (n=19) and included marginalized racial/ethnic (n=22) identities. Pre-cancer diagnosis, sexual orientation and race influenced women’s screening and vaccine behaviors. Sexual minority women, particularly individuals of color, were less likely to engage in cancer prevention behaviors (e.g., mammograms). Race and SES were important factors in patient care/survivorship with worse outcomes among African-American women of low SES, including all cause and breast cancer-specific mortality versus White women with high SES. Emergent themes in qualitative results emphasized the importance of patient intersectional identities, as well as feelings of marginalization, fears of discrimination, and general discomfort with providers as barriers to seeking cancer care.

CONCLUSIONS. Patients with intersectional identities often experience barriers to cancer care that adversely impact screening, diagnosis, treatment, as well as survivorship. The use of an “intersectional lens” as a future clinical and research framework will facilitate a more multidimensional and holistic approach to the care of cancer patients.

PO2 Youth Participation in HIV Prevention: A Systematic Review

Author(s): Mariajosé J. Paton, M.A., Paris Harrington, Sayward E. Harrison, Ph.D

SUBMITTED BY: Mariajosé Paton
Graduate Research Assistant
Department of Psychology

The purpose of this systematic review was to synthesize the literature to characterize youth prevention in HIV prevention interventions, evaluate challenges related to youth engagement, and determine the extent to which efforts yield successful intervention outcomes. Ninety-five articles reporting on 44 unique studies were reviewed using a systematic selection and coding process to extract information about study characteristics (e.g., theoretical orientation, study design, methods, duration), youth participation (e.g., inquiry-involved youth sample size, demographics, participation type, barriers for youth engagement), and study outcomes (e.g., variables measured, primary outcomes, key insights). Youth inquiry was defined as a group of youth who met to contribute to intervention development, selection, and/or delivery. Interventions included randomized control trials (n = 13, 29.6%), used a mix of quantitative and qualitative methods (n = 17, 38.6%) and spanned between 1-6 months (n = 18, 40.9%). Studies most often included small-to-moderate sized groups of youth (i.e., 11-49 youth; n = 13, 29.6%) ages 18-25 (n = 23, 52.3%) who were predominately Black (n = 19, 43.2%) and male (n = 16, 36.4%). Their participation was largely in the form of youth user-centered design (n = 28, 63.6%) as consultants (n = 21, 47.7%). Only ten studies reported inquiry-involved youth's sexuality, with five (n = 5, 11.4%) including YMSM in intervention efforts. Overall, findings suggest that SGM youth are underrepresented in studies using youth participatory methods for HIV prevention. Future areas of research and implications are discussed.

FUNDING SOURCE: National Institute of Mental Health (K01MH118073)

P03 Experiences with Racism, Racial Prejudice, Discrimination and Kidney Transplant in South Carolina

Author(s): Shamika Jones, Julisa Tindall, Jason L. Cummings, Tamara Savage, Coretta Jenerette, Prince Mohan Anand, Danielle Brown-Dolford, Katina Lang-Lindsey, Teri Browne

Submitted by: Shamika Jones

PhD Student

University of South Carolina Arnold School of Public Health and the College of Social Work

INTRODUCTION: The treatment option that offers the best outcomes for people with End-Stage Kidney Disease ESKD is a kidney transplant. Racial disparities in kidney transplant are significant and most pronounced in the Southern United States. The purpose of this study is to give Black ESKD patients in South Carolina the opportunity to share their stories and experiences with racism, racial prejudice, and discrimination in getting a kidney transplant.

METHODS: 100 Black ESKD patients living in SC have completed semi-structured interviews. Data are analyzed qualitatively using MAXQDA software and quantitatively with STATA 17.

RESULTS: Based on the preliminary findings (n=45), three major patterns have emerged:

1. Most patients desire a kidney (80%), few express concerns or reservations regarding transplantation surgery (18%), but fewer than one-third (29%) receive a referral on the kidney transplant wait list.
2. Few patients report receiving information from their kidney health providers on how to receive a kidney – especially from nephrologists (8%) and nurses (13%).
3. Many Black ESKD patients report experiencing discrimination/unfair treatment across various health care settings (past and present). More than half of patients agree that discrimination in doctor's offices is common (56%) and that the kind of insurance they have (56%) negatively impacts the overall medical care they receive. Many Black ESKD patients also report that White ESKD patients are treated better than Black ESKD patients.

CONCLUSION: Racial disparities have long existed in kidney transplantation, yet the impact of racism, racial prejudice, and discrimination on these health inequities is under-studied. This study can offer insight into new interventions and research to help improve kidney transplant parity.

FUNDING SOURCE: University of South Carolina ASPIRE

ACKNOWLEDGEMENTS: National Kidney Foundation of South Carolina

PO4 African American End-Stage Kidney Disease: What is the Effect of Everyday Racial Discrimination on Medication Adherence?

Author(s): Tamara Estes Savage, Teri Browne, Ronald Pitner & Dana DeHart

Submitted by: Dr. Tamara Estes Savage
Assistant Professor
University of North Carolina at Pembroke

This study explored the racial medication adherence disparity in end-stage renal disease (ESKD) patients. Prior research suggests that there are poor rates of medication adherence in the African American ESKD population. However, the reasons for this racial inequity are not understood. This study explored the impact of everyday racism in the healthcare system in general and dialysis centers in particular on medication adherence. To gain an understanding of the possible contribution of everyday racism to medication nonadherence, Critical Race Theory (CRT) was used as the theoretical foundation of the study.

A total of 46 African American ESKD patients participated in the study. Twenty seven patients participated in semi-structured, in-depth interviews. Some participants did explicate that they experienced everyday racism in the healthcare system and such experiences impacted their medication adherence. Additionally, all 46 participants completed a survey regarding self-reported medication adherence and everyday racism in the healthcare setting. There was a statistically significant negative relationship between the two constructs. The results of Pearson's correlation showed a significant negative relationship ($r = -.477, p < .01$) between medication adherence and everyday racism in the healthcare system.

This study has several limitations. A convenience sample was used for both the qualitative and quantitative portions. Additionally, the quantitative study used a non-experimental cross-sectional design with a small sample. However, this is the first study to ever examine the impact of everyday racism on medication adherence within the African American ESKD population. Furthermore, these results both qualitatively and quantitatively suggest that everyday racism did impact the medication adherence of the participants. Thus further study is needed to explore this phenomenon since medication nonadherence in the ESKD population results in increased hospitalizations, morbidity, and mortality.

FUNDING SOURCE: Institute of African American Research, Columbia, SC

PO5 Reducing Poverty and Building Capacity- Family Impacts of the Child Tax Credit Expansion

Author(s): Roddrick Dugger, MPH, Melanie Bean, Ph.D., Tegwyn Brickhouse, DDS, Ph.D., Phoenix Brice B.S., E. Rebekah Sicheloff, Ph.D., Glenn Weaver Ph.D., Elizabeth Adams, Ph.D.

Submitted by: Roddrick Dugger
PhD Candidate
Arnold Childhood Obesity Initiative

BACKGROUND: The recent Child Tax Credit (CTC) expansion provided lower-income families with monthly, unconditional cash assistance, thus reducing child poverty by nearly 30%. This study employed rigorous qualitative methodology to evaluate the impact of monthly CTC payments on families' physical, mental, and financial well-being.

METHODS: Parents (n=40, ages: 20-49 years, median income: \$36,000-48,000/year) of children (2-12 years) who participated in a larger, longitudinal CTC study were recruited for interviews. Parents were classified into two groups (e.g. household income above [n=21] vs. below [n=19] 200% of the Federal Poverty Line [FPL]). Trained researchers (n=3) conducted phone interviews (~25 mins) using a semi-structured interview guide after parents had received 3-4 monthly CTC payments. Interview questions assessed families' financial security before/after the CTC expansion, CTC spending decision-making, and CTC health impacts (e.g. nutrition, mental health, medical/dental care). Transcripts were independently coded using inductive analysis and an immersion crystallization approach. Themes were generated within and between groups using a constant-comparison analysis and mapped onto the Hidden Dimensions of Poverty framework.

RESULTS: Across income groups, parents reported the CTC expansion positively impacted family relationships, reduced stress, and facilitated meeting routine needs (e.g. food, bills, housing). Notably, parents below the FPL described a greater sense of self-determination and financial empowerment to purchase higher quality and greater volumes of food for the household. The CTC also expanded opportunities for families (above and below the FPL) to invest in quality-of-life activities (e.g. child extracurricular programming, family outings). Parents (particularly those below the FPL) expressed concern and disappointment around the scheduled end of the CTC expansion payments.

CONCLUSION: The CTC expansion may be a viable strategy to reduce poverty, decrease risk for chronic diseases, and improve quality of life, if sustained long-term. More research is needed to evaluate the health impacts and the cost benefit of this policy change.

FUNDING SOURCE: NIH (2T32CA093423) & Child Health Research Institute at Virginia Commonwealth University

ACKNOWLEDGEMENTS: I would like to acknowledge the families who shared their valuable lived experiences with us and Dr. Elizabeth Adams for her courage and passionate interest in this topic.

PO6 An affordable and physiological antagonist of bone morphogenetic protein signaling protected VSC4.1 motoneurons in cell culture model of spinal cord injury

Author(s): Nadia Al-Sammarraie and Swapan K. Ray

Submitted by: Nadia Al-Sammarraie

PhD postdoctoral fellow

Department of Pathology, Microbiology, and Immunology University of South Carolina School of Medicine

Spinal cord injury (SCI) causes acute and progressive neurodegeneration, mostly in motoneurons, in spinal cord leading to paralysis in the lower body parts and morbidity. Hospitalization followed by dietary management and intensive rehabilitation are the keys to improving SCI patient's outcome. However, health care disparities among the low socioeconomic patients suffering from SCI add additional obstacles to treatment and rehabilitation strategies that negatively affect patient outcome and overall quality of life, as reported recently. Hence, search for an affordable treatment to prevent neurological deficits and improve patient's physical and mental health is critical. At cellular level, SCI is characterized by a series of pathophysiological changes including interruption in the cell survival mechanism called autophagy that removes the damaged components in neurons in attempt to repair the spinal cord following injury. Our current SCI research involves exploration of an affordable treatment for alleviation of neurodegeneration in motoneurons. Our research aims to understand the cause-effect relationship between increase in bone morphogenetic protein 4 (BMP4) signaling and impairment in autophagy flux, affecting survival of the VSC4.1 motoneurons in a cell culture model of acute SCI. We use Noggin as an affordable and physiological antagonist of BMP4 signaling to protect VSC4.1 motoneurons in cell culture model of acute SCI. We cultured VSC4.1 motoneurons under starvation for 24 hours to mimic acute SCI condition and induce autophagy followed by exposure to high concentrations of BMP4 in absence and presence of Noggin for 24 and 72 hours. Our results clearly showed dose- and time-dependent decrease in cell viability due to exposure to BMP4; while Noggin treatment inhibited BMP4 signaling and maintained autophagy flux for survival of motoneurons. In conclusion, targeting BMP4 signaling with an affordable and physiological antagonist could provide functional recovery to SCI patients in the future

FUNDING SOURCE: This research is supported by SCIRF-2020-PD-01 grant.

ACKNOWLEDGEMENTS: SCIRF-2020-PD-01 grant

P07 **Perceived Discrimination in School: A Longitudinal Look at the Impact on Expectations and Health**

Author(s): Dr. Emily Smith Schafer

Submitted by: Emily Smith Schafer, *Assistant Professor of Psychology*
University of South Carolina - Union

BACKGROUND: Schools are responsible for creating an effective learning environment, while also ensuring the safety of their pupils. There is significant motivation to understand the influence various characteristics of a school may have on the developmental outcomes of students. The purpose of this study was to look at levels of perceived discrimination in school among students of different races and to assess whether there are significant short or long term effects as they develop.

METHOD: This study analyzed data from the National Longitudinal Study of Adolescent Health, which is a multi-stage nationally representative study of individuals who were in 7th – 12th grade during the 1994-95 school year. A sample of 6,504 from the publicly available portion of the data set was utilized, including national representation of people from every race, ethnic group, geographical, and socioeconomic subgroup. One-way ANOVA was used to determine whether significant mean differences existed based on race/ethnicity. Multiple linear regression analyses were used to determine whether socioenvironmental discrimination significantly predicted education expectations, income expectations, or overall health. They were then stratified by race/ethnicity to measure whether discrimination in school differentially predicted the outcomes based on the race/ethnicity of the student and to determine which groups were distinctly affected by peer and/or teacher prejudice.

RESULTS: Responses on teacher discrimination items showed that Black students reported the highest levels of perceived teacher discrimination. Educational expectations were lowest for Hispanic students. At wave three, participants who identified their race/ethnicity as Hispanic or other reported the worst overall health; whereas at wave four, white participants had significantly better overall health than the other three groups. Teacher discrimination was found to be a significant predictor for Educational Expectations, Income Expectations, and Overall health eight and 15 years later. When stratified by race, higher teacher discrimination predicted lower educational expectations and poorer overall health eight years later for Black, Hispanic, and white students.

CONCLUSIONS: As a college education is one of the few ways to change your socioeconomic status in the United States today, inadvertently directing youth away from this opportunity is more than a disservice. It is harmful. It is also wrong to allow a toxic culture to continue in schools that is contributing to the declining health of students, eight and even 15 years later.

ACKNOWLEDGEMENTS: This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (<http://www.cpc.unc.edu/addhealth>). No direct support was received from grant P01-HD31921 for this analysis.

PO8 **Implementing a Collaboratory to Reduce Rural Disparities for Chronic Obstructive Pulmonary Disease**

Author(s): Tracy Fasolino, Michelle Deem, Kristine Boswell, Georgia Siedschlag, Caitlin Moore-Kickham, Jonathon Beatrice, Anne Koci, Michelle Taylor-Smith, Kathleen Valentine

Submitted by: Tracy Fasolino

Associate Professor

Clemson University/College of Behavioral, Social, and Health Sciences/School of Nursing

COPD is the third leading cause of morbidity in the US, impacting over 16.4 million adults. Nearly 400,000 South Carolina residents (7.5%) suffer from COPD with the majority living in rural communities, where the prevalence is nearly double of urban counterparts (8.2% versus 4.7%). Rural regions are particularly vulnerable due to use of biomass fuels, poor air quality, and higher percentage of smokers. Given the scarcity of pulmonary specialty in rural settings, primary care providers serve as the safety net for COPD. The purpose of this study was to identify and implement strategies using a collaboratory to reduce COPD health inequities in rural communities.

Using the Health Equity Framework, our collaboratory conducted a gap analysis to identify the clinical, educational, and research disparities for COPD in rural Upstate SC. We concentrated on identifying the health outcomes specifically linked to social, economic, and environmental conditions. The four domains of focus included: 1) relationships and networks, 2) individual factors, 3) systems of power, and 4) physiological pathways.

A critical finding of our analysis was educational needs of rural providers on COPD pathology, assessment, and diagnostics. In response, we initiated real-time education sessions, followed by in-person coaching by a pulmonary expert. Next, rural patients reported a wide range of needs, including financial support for pulmonary inhalers and oxygen supply. We created a resource library for providers and patients with pharmaceutical sponsorship forms and durable medical company contacts. Additional findings from our analysis are informing next steps to improve health equity through policy and advocacy.

Our team identified several areas of need for providers and patients related to COPD. We were able to fill immediate gaps through our collaboratory of experts in education, clinical practice, and research. Reducing rural health disparities will require coordinated efforts by multiple stakeholders to improve health outcomes.

PO9 A Novel approach for rural interdisciplinary care coordination of uninsured South Carolinians with opioid use disorder and/or co-occurring Hepatitis-C Virus

Author(s): Caitlin Kickham, FNP-C, Ashley Coleman, MSW, Prerana Roth, MD, Alain Litwin, MD

Submitted by: Caitlin Moore Kickham
Associate Director, Clinical Operations
Clemson University - Clemson Rural Health

BACKGROUND: A recent increase in drug overdose-related mortality began in 2019 and continues with South Carolina (SC) and 24 other states reporting a $\geq 20\%$ increase in deaths. Additionally, the opioid epidemic has been associated with a rise in hepatitis C virus (HCV) rates and in SC there are up to 85,000 persons infected with HCV. The risk of co-occurring diseases is higher in persons who inject drugs (PWID) and a comprehensive approach to both OUD and infectious diseases (e.g., HCV) is warranted.

METHODS: While telemedicine and other harm reduction strategies began in response to the COVID19 pandemic, few, if any, of these options will sufficiently address needs of rural South Carolinians. Clemson Rural Health (CRH) is collaborating with the Prisma Health System through extramurally funded studies (Gilead Sciences - 2020, Center for Rural and Primary Healthcare - 2021) to utilize a novel approach of mobile health unit delivered, interdisciplinary care coordination for rural South Carolinians, in the Upstate and Midlands regions, with OUD and/or co-occurring HCV regardless of payer status. This interdisciplinary team is comprised of physicians from Prisma Health's Addiction Research Center and a CRH team including family nurse practitioners (with MAT waivers), a clinical social worker, health educator and medical office assistants.

RESULTS: To date, Clemson Rural Health has established 38 new partners, traveled to 27 sites, for a total of 452 miles to screen 119 patients for HCV and OUD. A total of 23 patients have been identified with HCV (4 currently receiving treatment; 1 completed treatment). A total of 26 patients have been identified with OUD (21 currently receiving treatment).

CONCLUSION: In the future, Clemson Rural Health anticipates expanding HIV screening and PrEP services on these mobile health units.

FUNDING SOURCE: Gilead Sciences, SC Center for Rural and Primary Healthcare

PO10 **Simulation and social determinants of health (SDOH) in nursing education: An integrative review**

Author(s): Nowrin Tamanna; Dr. Crystal L. Murillo; Dr. Coretta M. Jenerette

Submitted by: Nowrin Tamanna
Graduate Research Assistant
University of South Carolina, College of Nursing

BACKGROUND: Experiential learning is a vital component to prepare the future nursing workforce to apply their understanding of the SDOH and to develop SDOH specific advocacy skills. In nursing education, the focus on SDOH is conceptual with the approach that SDOH are facts to be known rather than conditions to be challenged.

MOREOVER, there is a paucity of research demonstrating how nursing faculty use experiential learning to embed SDOH content into a patient specific context for students to view themselves as transformative social justice change agents. With only a conceptual understanding, the emerging workforce may be ill prepared to address SDOH; assist patients to make the choices that lead to good health; and appreciate the impact of SDOH on health, social justice, and health equity.

PURPOSE: The aim of this integrative review is to present a state of the science demonstrating how simulation is used to incorporate SDOH knowledge into a patient-specific context and to identify if the simulation experiences measured SDOH knowledge or transformation of student perspective related to participation in the experience.

METHODS: This review follows Whittmore and Knafel's step by step method of conducting integrative reviews. 54 studies met inclusion criteria specific to the SDOH and are included in this review.

RESULTS: Of the 54 studies, authors identified simulation experiences from all five SDOH categories. Only one study measured knowledge specific to SDOH. Forty-four studies measured an aspect of advocacy/perspective transformation.

CONCLUSION: Results of this review identify clear gaps and over and under representations using simulation to teach SDOH. An additional noteworthy finding includes no social support networks mentioned in any of the studies. Based on results, authors suggest that SDOH related training be experiential, with seamless integration of SDOH as both a content area and health equity advocacy as a skill.

PO11 CHAMPS: A Medical-Legal Partnership Addressing the SDOH & Reducing Unnecessary DSS Referrals

Author(s): Emily Suski, Christopher Church, Renee Answer

Submitted by: Emily Suski
Associate Professor
University of South Carolina

The Carolina Health Advocacy Medicolegal PartnerShip (CHAMPS) is an innovative health care delivery model that works to address the social determinants of children's health through interdisciplinary legal services. In doing so, CHAMPS reduces unnecessary, traumatizing Department of Social Services (DSS) referrals for the families it serves.

This evaluation begins to close the research gap in the area of early intervention of counsel in child welfare matters by investigating the impact of a Medical Legal Partnership (MLP) serving 8 counties in and around Columbia, South Carolina. Using a randomized control trial (RCT), where patients presenting with attendant legal issues are randomly assigned to either receive help from the multidisciplinary legal and social work team CHAMPS or receive comprehensive self-help materials to tackle the issues on their own, this study will evaluate whether early intervention of legal counsel reduces the reliance of medical professionals on the mandatory reporting system.

The theory runs that if reliance on the mandatory reporting system is reduced, reports to DSS, and specifically reports resulting in unfounded investigations, will reduce and families will experience improved health and financial stability. By reducing burdens such as food insecurity, financial insecurity, and lack of access to health insurance, the hypothesis is a family will stabilize and medical professionals will no longer feel compelled to initiate the mandatory reporting process to DSS.

The primary outcome is whether families that access the CHAMPS services experience fewer DSS investigation requests and specifically experience less investigations that result in an unfounded determination (indicating there were no issues requiring DSS intervention at the time). For those families that interact more with CHAMPS and less with DSS, it is expected that they will improve their financial stability and experience increased access to medical care.

PO12 **Analysis of Parent and Youth Conversations about Sexual Health in South Carolina**

Author(s): Rena P. Dixon, PhD, MPH, MCHES, Brittany Wearing, MPH, CHES, Katrina James, MPH, CHES, FPHW

Submitted by: Rena Dixon
Director of Health Services
Fact Forward

BACKGROUND: The teen birth rate in South Carolina declined 70% between 1991 and 2019. Even so, in 2019 there were 3,425 births to teens with SC ranking 11th in the nation. There are still disparities that exist between Black and Hispanic teens compared to White teen births.

Major studies show that adolescents who feel open to discussing sexual health with their parents are more likely to delay initiating sexual intercourse. In a recent study, teens that reportedly had a healthy discussion with parents in the last year about sex, birth control and the dangers of STDs were two times more likely to use condoms the last time they had sex than teens who did not talk to their parents as often.

METHODS: In 2021, Fact Forward implemented a community survey about reproductive health with parents and their children between the ages of 15 and 21 in Richland and Orangeburg Counties with 248 parents and 88 youth survey participants.

RESULTS: In Richland County 74% of youth compared to 64% of youth in Orangeburg County reported that they talked to at least one of their parents about sex and/or birth control. Of those who did, 47% in Richland and 33% in Orangeburg said they talked to both parents and 47% in Richland compared to 67% in Orangeburg indicated that they had only talked to their mothers. Fewer than one in ten youth (6%) in Richland and none in Orangeburg reported that they only spoke to their fathers about sex or birth control.

CONCLUSION: SC parents, especially fathers need additional support to have meaningful conversations about love sex and relationships with youth. 85% of parents in both counties reported that having a short training or webinar to help them prepare for conversations about sex with their children would be helpful.

FUNDING SOURCE: Office of Population Affairs Grant TP2AH000064-01-00

ACKNOWLEDGEMENTS: Philiber Research

PO13 Social determinants of health exacerbate implementation and access barriers to telehealth HIV care in the Southern United States. Results from a scoping review of research and intervention needs

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Submitted by: Valerie Yelverton

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BACKGROUND: The South is the epicenter of the HIV epidemic in the US, with a disproportionate burden of HIV among racial and ethnic minorities and rural-living communities. Telehealth was rapidly implemented to mitigate widespread interruption of HIV care services due to COVID-19, however not all persons with HIV (PWH) benefited from telehealth. This study sought to understand how intervention needs and research gaps described in the academic literature related to telehealth barriers in Southern US.

METHODS: In August 2021, five academic databases were searched for publications describing telehealth in HIV care during COVID-19. Search terms were organized in three domains: HIV, telehealth, and COVID-19. Literature was analyzed and synthesized using thematic analysis and meta-synthesis methodology.

RESULTS: Thirteen peer-reviewed articles were included in this study; four of which described barriers to telehealth HIV care in the South; twelve outlined intervention needs and research gaps to sustain/improve telehealth HIV care. Reported barriers to telehealth HIV care were categorized into four domains: technology-related barriers, virtual nature of HIV care, policies/regulations, and social determinants of health (SDH). SDH were reported to amplify other barriers to telehealth such as limited access to technology, low digital literacy, and feeling uncomfortable with virtual visits. Intervention needs and research gaps identified in the literature were mapped by barrier domains and extended by a health outcomes domain; they included new telehealth options, provider and patient trainings, best practice guidelines, technology distribution programs, criteria for telehealth receipt, policy changes to enable telehealth, assessing telehealth effects on clinical outcomes, and addressing SDH.

CONCLUSIONS: SDH interact with other barriers to telehealth HIV care in the Southern US. While the identified intervention needs and research gaps address multiple telehealth barrier domains, recommended interventions to improve SDH remain unspecific. Future telehealth research and interventions must include foci on SDH and the effects of telehealth on HIV care outcomes.

FUNDING SOURCE: This work was partially supported by a SPARC Graduate Research Grant from the Office of the Vice President for Research at the University of South Carolina.

PO14 **Reducing Disparities by Standardizing Child Abuse Screening in Infants with Fractures**

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Submitted by: Stephanie Schaller
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BACKGROUND: Nationally, children twelve months old or less who present to emergency departments with fractures are not being screened adequately for possible physical abuse with a skeletal survey. (Paine & Wood, 2018; Shelmerdine et al., 2014; Wood et al., 2019). Without universal screenings, implicit bias along racial and socioeconomic lines becomes a factor in deciding who should get screened. This results in either under-or over-utilization of skeletal survey screenings (Kim et al., 2017; Paine & Wood, 2018). When child abuse is not diagnosed correctly, further abusive injuries or even death can occur (Ravischandiran et al., 2010).

PURPOSE: The purpose of this review is to identify evidence-based intervention strategies that increase standardization and decrease implicit bias of skeletal survey screenings.

METHODS: An evidence review was conducted to identify intervention strategies that increase the standardization of skeletal survey screening, increase adherence to national screening guidelines, and decrease implicit bias in screening for child abuse in young children with fractures.

RESULTS: Clinical pathways are structured multidisciplinary care plans that translate evidence-based practice into an algorithm that standardizes care for a specific population (Stavas et al., 2020). Clinical pathways effectively improve patient care and reduce inconsistency of outcomes (Lion et al., 2016; Rotter et al., 2010). The presence of a child abuse pathway increases the odds of skeletal survey performance and has been shown to be effective in increasing adherence to national child abuse screening guidelines (Stavas et al., 2020; Tiyyagura et al., 2020). After implementation of a clinical pathway, race-based disparities in skeletal survey ordering was eliminated, however, disparities still existed for children with public insurance (Kim et al., 2017; Stavas et al., 2020).

CONCLUSION: Implementing a child abuse clinical pathway can result in better adherence to national screening guidelines and decrease implicit bias in screening for child abuse.

ACKNOWLEDGEMENTS: Kate Chappell, PhD

PO15 **Voices/Voces: Pregnancy and Birth Inequities in the Context of COVID-19**

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Submitted by: Deborah Billings

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Institute for Families in Society/ Health Promotion, Education and Behavior; University of South Carolina

BACKGROUND: South Carolina Medicaid data, analyzed by the Institute for Families in Society (IFS) over the last decade, indicate that racial/ethnic inequities in maternal health and birth outcomes persist. The IFS Voices/Voces project documents the experiences, perspectives, and proposals for action among African American and Latinx immigrant women using Medicaid to cover the costs of pregnancy-, birthing- and postnatal care during the COVID-19 pandemic.

METHODS: The multi-lingual, racial and ethnic research team conducted qualitative semi-structured interviews with pregnant and postpartum (up to 1 year) women (N=30) recruited through partnering community organizations. Eligible participants were invited via email or text message, in English or Spanish, and interviewed by phone. The team analyzed transcribed interviews using NVivo to identify recurrent patterns and themes.

RESULTS: Worry and anxiety due to COVID-19-related uncertainty were prevalent, as were expressions of isolation and lack of social support. Emotional burdens were linked to COVID-related policies that reduced or fully eliminated social support during prenatal care visits and in-hospital birthing/postpartum periods. Ease of enrolling in Medicaid was more difficult for Spanish- vs English-speaking participants. Participants cited community-based programs (e.g. doulas, prenatal and postpartum accompaniment) as major sources of support. Participant's experiences of isolation, worry, anxiety, fear, and obstetric violence were not unique to COVID-related conditions. COVID exposed already existing realities and exacerbated them.

CONCLUSIONS: Integrating community partners into the research process helps to establish trust and ensures supportive resources needed by participants, all key to ethically grounded research. Language justice must be incorporated into Medicaid enrollment and service delivery. Community-based programs should be replicated throughout South Carolina to offer culturally engaged support and to be a bridge between communities and resources. Human rights and justice issues in services delivered to low income pregnant, birthing, and parenting People of Color must be addressed.

FUNDING SOURCE: South Carolina Department of Health and Human Services (SCDHHS) and partially funded by the SC March of Dimes

ACKNOWLEDGEMENTS: We wish to acknowledge the valuable contributions made by the women who participated in these interviews shared their stories. We also acknowledge the health care and social service professionals and community leaders who shared their perspectives and insights to help us all better understand the pregnancy and postpartum experiences of women who use Medicaid. Lastly, we appreciate the support of the IFS Administrative Support staff and Data Science & Visualization team throughout this project as well as graphic design from 3RGDesignWorks.

PO16 ‘Spiritual ritual’ as resilience resource to promote health equity among marginalized spiritual communities.

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Submitted by: Abhishek Aggarwal

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Department of Health Promotion, Education and Behavior

BACKGROUND: “Ahle-Hava” is a marginalized and remote community in Iran with low socio-economic status, lack of access to healthcare services, and high suicide rate, mental health disorders, and mortality. They believe that the existing “spirit” in the wind is the source of diseases; therefore, they join Ahle-Hava’s spiritual ritual for treatment. Many studies have elaborated on the socio-cultural processes of such communities; however, no study has explored spiritual practices as a potential mechanism to mitigate health disparities. Therefore, this paper aimed to identify the multi-level resources for resilience promotion developed through spiritual practices, and to inform intervention strategies that enhance health equity.

METHODS: This qualitative research conducted document analysis using multiple documents such as books, news, recorded interviews, and documentary movies. MAXQDA was utilized to conduct thematic analysis using inductive approach. First, the themes were developed through preliminary and axial coding. Then, through the peer review, the compliance of codes was validated.

RESULTS: Ahle-Hava’s “spiritual ritual for healing” created multilevel resilience resources. At psychological level, the ritual fostered social identity, acceptance of illness, sense of belongingness, hope for recovery, and lesser fear and pain caused by health issues. At behavioral level, the restricted-code of spiritual community protected members from risky-health behaviors, encouraged health-promotion behaviors, and enhanced motivation to fulfill responsibilities. At social level, the collective practice of the ritual developed connection with the spiritual leader, increased social capital, social support and integration. At structural level, the spiritual leaders developed material resources (community centers) and strengthened cultural values, attitudes, and beliefs.

CONCLUSION: Public health professionals should consider the following strategies to promote health equity in marginalized and spiritual communities: (1) collaborate with spiritual leaders to influence health of members, (2) utilize community centers for implementation of health promotion interventions, and (3) promote the spirituality-based psychosocial resources during health issues.

PO17 **The Efficacy of Bluetooth Scales: Measuring Results in a Telehealth Weight-Loss Intervention**

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Submitted by: Ashley Fellers

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In the U.S., African Americans have higher rates of obesity compared to white and Hispanic populations. The Nutritious Eating with Soul (NEW Soul) study partners with local soul food chefs to deliver a behavioral nutrition intervention to African American adults with obesity in South Carolina through weekly cooking classes. As a result of COVID-19, interventions moved online. This study examined participant engagement utilizing Bluetooth scales to assess body weight in place of in-person assessments.

METHODS: All current participants (n=148) were invited to participate in the remote weight assessment with Bluetooth scales. Seventy-five (51%) consented and were mailed Fitindex scales. The research team sent emails explaining scale set-up, an assigned login for the Fitindex app to sync their scale, and contact information of research staff. We monitored the completion of the weigh-in assessment over 1 month and sent regular reminders.

RESULTS: Of the 75 participants, 2 (3%) dropped the study. Of the 73 remaining participants, 70 (96%) recorded an initial weight. An average of 2.57 contacts were required for a participant to complete their initial weigh-in. The most effective method of reaching participants was via text. Many participants (23, 33%) required technological assistance to complete their weigh-in and 35 (50%) sent a photo of their weight rather than using the app.

CONCLUSIONS: Bluetooth scales were an effective way of assessing body weight when in-person assessments are not possible; however, only 51% of enrolled participants opted to receive a scale. Participants who received a scale responded positively and utilized the scale to monitor their weight. Most participants were able to connect to the app; however, accepting pictures of the weight was a crucial alternative method of collecting data. Moving forward, studies assessing body weight and body weight changes via telehealth interventions should consider utilizing Bluetooth scales as a method of assessment.

FUNDING SOURCE: National Heart, Lung, and Blood Institute of the National Institutes of Health under award number R01HL135220 and 3R01HL135220-04S1

PO18 **Enhancing Equity Through Community Engagement: Findings from Community Listening Sessions in Four SC Communities**

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Submitted by: Lauren Workman

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BACKGROUND: Promoting authentic community engagement (CE) is a key challenge for public health, yet an essential process towards greater health and racial equity. The Enhancing Equity Through CE (EECE) project aims to understand how to promote meaningful CE and equitable decision making. EECE is working with 4 communities to implement community listening sessions.

METHODS: Sessions are designed to understand how residents would like to be engaged, their capacity building needs to engage in decision-making, and effective strategies for CE. Led by CHWs, 19 sessions have been conducted across 4 communities; 5 more are planned. Participants were recruited through word of mouth, social media, and flyers; each received \$30 per session. Sessions are transcribed and analyzed using an inductive approach.

RESULTS: Violence, lack of affordable housing, and economic development are primary community concerns. Basic resources including childcare, transportation, and jobs are needed, especially in rural areas. Structural racism was also discussed, as it underlies these issues. Barriers to CE include lack of trust in outsiders, which stems from a history of traumatic events and disingenuous engagement. Division between neighborhoods and a general lack of unity were discussed, as well as the way working in silos inhibits collective action. Participants described how hopelessness and a lack of youth involvement inhibit CE. Suggested strategies for CE included meeting people where they are with solutions to their concerns and working through trusted entities (churches, neighborhood associations, & CHWs). Participants noted trusted individuals usually come from within, and trust is built through consistency, commitment, and honesty.

CONCLUSIONS: Significant challenges exist in these communities, many rooted in social determinants. Paradigm shifts in the way that academic partners work with communities are needed to ensure that we are addressing relevant community issues in real time. We will continue to analyze these data to facilitate development of CE tools and trainings.

FUNDING SOURCE: This project is funded through Aligning Systems for Health, with support from the Robert Wood Johnson Foundation

PO19 The Importance of Clarity and Accessibility: Examining Patient Declines in a Free, Hispanic-serving Clinic during the COVID-19 Pandemic

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Submitted by: Patrick McKenzie
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In the United States, the COVID-19 pandemic exposed preexisting social and health disparities among historically marginalized populations. Hispanic populations in the U.S. face the lowest rate of medical health insurance coverage of all ethnic groups and frequently face language barriers and immigration status concerns in health care settings, issues which were only exacerbated by the pandemic (Gil et al., 2020). Good Samaritan Clinic (GSC), a free clinic largely serving the uninsured Hispanic population in the Columbia, SC area, witnessed a dramatic decline in patient volume during the early COVID-19 pandemic. During this time, the clinic had moved to virtual care. The goals of our project were twofold: to investigate the primary drivers of this reduction and to suggest outreach initiatives to alleviate these barriers. To do so, we conducted 13 semi-structured interviews with randomly selected GSC patients who had visited the clinic from March 2019 to March 2020. These interviews focused on barriers preventing access to medical care and avoidance of medical care due to the pandemic. Interviewed patients most often reported uncertainty of clinic hours and difficulties accessing virtual care. To mitigate these concerns, we mapped the addresses of all GSC patients during the same period, aggregating the data to the census tract level for anonymity. Using these maps, we created a list of businesses and community organizations within the census tracts and around clusters with the highest patient populations to target with promotional campaign materials. We also created a list of policy suggestions for GSC to further address the concerns of patients and to expand the reach of the clinic in the future. Our findings emphasize the importance of health care administrators making any changes to clinic procedures both clear and accessible, particularly when dealing with patient populations with limited access to technology and difficult financial circumstances.

PO20 The Relationship Between Social Determinants of Health and HbA1c Control Among Diabetic Patients at the Prisma Health Family Medicine Clinic

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Submitted by: Sydney Garner

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While diabetes is a complex disease that is impacted by biologic factors, it is also influenced by the social and physical environments of patients. Traditionally, clinicians have focused on intervening with the biological factors. However, many are starting to recognize the effect that SDOH have on disease course and disparities in outcomes for patients.

A PDSA cycle was conducted as part of a year-long quality improvement at the University of South Carolina School of Medicine. The aim of this cycle was to efficiently implement a Social Determinants Of Health (SDOH) survey at the Prisma Health Family Medicine Center (PH FMC) in order to measure the association between SDOH scores and diabetes management.

Over the course of 5 weeks, a SDOH questionnaire was used to screen 22 patients. Patient information, questionnaire responses, and diabetic outcomes (HbA1c) were recorded in a password-protected Excel file. Numeric scores were assigned to each answer and a linear regression was used to evaluate the correlation between SDOH scores and HbA1c levels.

Financial strain was the most prevalent positive screen among participants (77.3%), followed by stress (54.5%) and food insecurity (45.5%). Housing (22.7%) and transportation difficulties (18.2%) received fewer positive screens. Overall, higher scores on the survey were correlated with an increased HbA1c, indicating poorer glucose control.

This study demonstrates that poor SDOH is an important factor affecting diabetic management, but further screening needs to be done to better understand the relationship between SDOH and patient outcomes. HbA1c is an important prognosticator of outcomes in diabetes patients; as such, mitigating SDOH concerns is crucial to improving long-term care of diabetic patients. Next steps will be to identify resources for patients with positive screenings and to determine if

PO21 **CHARGED3 - Children's Health & Resource Geographic Exploration for Data-Driven Decisions**

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Submitted by: Ana Lopez-De Fede

Research Professor/Associate Director

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INTRODUCTION: Addressing childhood developmental challenges early, when intervention matters most, starts with understanding the characteristics of children most at risk for adverse developmental outcomes. Having a comprehensive picture of resources and patterns aids in the way of making effective and impactful policy decisions.

The UofSC Institute for Families in Society's (IFS) interdisciplinary research team created the Children's Health & Resource Geographic Exploration for Data-Driven Decisions (CHARGED3) project. Funded by The Duke Endowment, CHARGED3 identifies communities of opportunity around South Carolina by looking at different aspects of social determinants of health such as poverty, childcare deserts, and access to healthcare.

OBJECTIVE: Using Geographic Information Systems (GIS), IFS sought to develop a web-based Geospatial Environmental Scan© (GeoEScan©) inside of a resource Hub. A GeoEScan© allows users to geographically explore health characteristics and resources in South Carolina to support planning, resource allocation, and other decision-making processes through interactive maps and data.

METHODS: IFS built the CHARGED3 Hub on the ArcGIS Hub platform. The Hub leverages web-based geographic data without requiring user downloads and allows for disseminating data in an interactive package.

RESULTS: The online resource Hub provides relevant background information, a downloadable PDF snapshot of key child well-being statistics, and a web-based GeoEScan©, which contains geographic layers of different social and community contextual factors and is the heart of the Hub.

CONCLUSION: The interactive tools developed through CHARGED3 equips stakeholders with critical information that enables them to identify inequities and supports the data-driven decision making required to advance health equity and address the underlying social determinants of health driving the inequities faced by South Carolina's youngest.

Opportunities exist to further update CHARGED3 with more innovative research and technologies, along with applying the underlying framework to other special populations and areas of research.

FUNDING SOURCE: The Duke Endowment

ACKNOWLEDGEMENTS: We wish to acknowledge the valuable contributions made by the representatives of child-serving agencies who served on the Advisory Committee. We also appreciate the support of the IFS Administrative Support staff, Ashton Pearson for material review and 3RGDesignWorks for this graphic design.

PO22 **Analyzing demographics and the use of vaginal iodine preparation in high risk pregnant women to reduce rates of endometritis**

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Submitted by: Madisyn Currie

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Endometritis is an ascending pelvic infection that can complicate postpartum care for women, especially after delivering via cesarean section (c-section). Post-cesarean endometritis can increase morbidity and cost of care for women who give birth. There are disparities in overall care between minority populations and white populations. Our goal is to determine the impact of a vaginal iodine preparation prior to c-section on incidence of endometritis with patients at Prisma Health Midlands, as well as analyzing patient demographics and disparities. We hypothesize that women having an unplanned c-section who receive a vaginal iodine preparation prior to surgery will have a decreased incidence of endometritis. Data was collected using retrospective and prospective methods. Retrospective data from previous years at Prisma Health Midlands were analyzed to find participants who fit the inclusion criteria. These participants were used as the control group, while prospective patients were consented at Prisma Health to receive a vaginal iodine preparation. Collection is still ongoing, but several preliminary data points have been obtained. Most notably, it was found that there was not a significant difference between white and black populations for the care and diagnosis of endometritis. This means there is possible equitable care for this diagnosis and would warrant further investigation. It may be imperative to determine how care is implemented in the OB/GYN department at Prisma in order to create a model for equitable care throughout South Carolina. Future research on this topic includes expanding the generalizability of the study beyond large academic centers and further increasing the diversity of participants to guarantee equitable care.

FUNDING SOURCE: 2021 Transformative Seed Grant

PO23 Investigating immediate postpartum long-acting reversible contraception utilization by Choose Well grant beneficiaries

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Submitted by: Oscar Parker Martinez

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BACKGROUND: Long-acting reversible contraceptive (LARC) placement immediately postpartum has been shown to reduce the number of unintended and short-interval pregnancies. The Choose Well (CW) grant is a statewide initiative that deems all patients in South Carolina eligible for immediate postpartum LARC insertion regardless of insurance coverage. The purpose of this study was to investigate the demographics of women who benefitted from the CW grant in order to inform policy discussion.

METHODS: Retrospective chart review of all patients receiving immediate postpartum LARCs at Prisma Health-Richland from 2018-2020 was performed. Chi-squared tests and 2-sample t-tests were done to measure associations between CW beneficiaries and the commercially and federally insured. Sensitivity analysis which excluded commercially insured patients was also performed.

RESULTS: 1,495 women received immediate postpartum LARCs over our study period. 315 (21.1%) were covered by the CW grant and 1,180 (79.9%) by commercial or federal insurance. On average, the CW cohort was older (28.2 years vs. 26.6 years; $p < 0.001$), more likely to be Hispanic (70.3% vs. 5.1%; $p < 0.001$), and less likely to have a high school diploma (56.4% vs. 80.8%; $p < 0.001$). They also attended fewer prenatal visits (7.7 vs. 8.4; $p < 0.001$) and were less likely to attend their 6-week postpartum follow-up (57.6% vs. 68.3%). Sensitivity analysis excluding the commercially insured showed significant differences between the CW and federally insured patients except in number of prenatal visits ($p = 0.107$) and attendance of postpartum follow-up ($p = 0.074$).

CONCLUSIONS: The CW grant has increased LARC access for a number of women, who may not have otherwise received this essential health service. These women were on average Hispanic, older, and less educated. They also received less prenatal care and were less likely to attend their postpartum follow-up. Results from this study indicate that policy efforts aimed at increasing access to postpartum contraception should focus in these areas.

PO24 **Racial Disparities in Melanoma Survival Outcomes: A Scoping Review**

Author(s): Robin D. Hainline, MSN, RN; Karen E. Wickersham, PhD, RN

Submitted by: Robin D. Hainline
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BACKGROUND: Melanoma, the 5th most common cancer diagnosed in South Carolina, only accounts for around 1% of all skin cancer diagnoses. The propensity of melanoma to metastasize, though, makes it the leading cause of skin cancer related deaths. Racial minority groups on average have a lower incidence of melanoma compared to their Caucasian counterparts; however, it is well researched that health disparities exist across many disease processes. These health disparities are primarily caused by determinants of health, and mainly affect people of color (POC). To improve health outcomes for POC, it is critical to assess whether a racial disparity exists in melanoma survival outcomes.

PURPOSE: The objective of this scoping review is to assess if a disparity exists between Caucasian and POC as it relates to melanoma survival outcomes. Our research question is: “How does race impact survival outcomes in patients with melanoma?”

METHODS: PubMed, Web of Science, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases were searched for literature related to survival outcomes in various types of melanoma. Full-text articles, written in English, from the years 2016-2021 were included in the review.

RESULTS: 574 published articles were initially identified. Of those, 14 articles met inclusion criteria and were included in the review. Based on preliminary results, African Americans were found to have a significant survival disparity compared to their Caucasian counterparts. All minority racial groups were found to have a disparity in stage at diagnosis and greater risk for disease-specific mortality.

CONCLUSIONS & IMPLICATIONS: We confirmed that a racial disparity exists in melanoma survival outcomes. One potential explanation for this finding may be due to the later stage of diagnosis for POC. Future research should determine why this disparity exists and develop, test, and implement interventions to assist in improving survival outcomes for this population.

PO25 Increasing Access to Vaccines for Children by Harnessing the Power of Geographic Information Systems

Author(s): McColloch Salehi, Parisa Bozorgi

Submitted by: McColloch Salehi

Vaccine Program Recruiter

South Carolina Department of Health and Environmental Control- Immunizations

BACKGROUND: The Vaccines for Children (VFC) program is a federal initiative designed to help ensure that cost is not a barrier to vaccine access for children who are Medicaid-eligible, uninsured, American Indian or Alaska Native (AI/AN), and/or underinsured, through their 18th year of life. Jurisdictions executing the program, including South Carolina, are charged with recruiting, enrolling, and maintaining a network of providers to offer vaccination services using VFC program-provided vaccine.

METHOD: In order to ensure our outreach efforts are data-driven and reflective of the multi-variate barriers facing communities across the state, SCDHEC's Immunizations Division worked with SCDHEC's Geographic Information System (GIS) team, who performed an analysis of gaps in VFC providers using the enhanced two-step floating catchment area (E2SFCA) method (Luo & Qi, 2009). This analysis accounts for both the size and location of eligible populations and their physical proximity to current VFC providers. The accessibility score from the E2SFCA analysis was then used in conjunction with the CDC's Social Vulnerability Index (SVI) for transportation, one of the four factors accounted for in the overall SVI score (Bozorgi et al., 2021).

RESULTS/CONCLUSION: The resulting analysis was overlaid with Immunization Information System (IIS) data on prospective providers, as well as school-specific immunization coverage data. We are able to analyze where areas of high transportation vulnerability scores and low VFC provider access overlap, thus enabling a data-driven, multi-pronged approach to ensuring all children across the state have equitable access to routine childhood vaccines.

REFERENCES: Bozorgi, P., Eberth, J. M., Eidson, J. P., & Porter, D. E. (2021). Facility Attractiveness and Social Vulnerability Impacts on Spatial Accessibility to Opioid Treatment Programs in South Carolina. *International Journal of Environmental Research and Public Health*, 18(8), 4246. <https://doi.org/10.3390/ijerph18084246>

Luo, W., & Qi, Y. (2009). An enhanced two-step floating catchment area (E2SFCA) method for measuring spatial accessibility to primary care physicians. *Health & Place*, 15(4), 1100–1107. <https://doi.org/10.1016/j.healthplace.2009.06.002>

PO26 **Social capital, urbanization level, and Covid-19 vaccination uptake in the United States: A national level analysis**

Author(s): Shan Qiao, PhD, Zhenlong Li, PhD, Jiajia Zhang, PhD, Shujie Chen, MPH, Camryn Garrett, MPH, Xiaoming Li, PhD, Sara Wilcox, PhD

Submitted by: Camryn Garrett

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BACKGROUND: Vaccination remains the most promising mitigation strategy for the Covid-19 pandemic. However, existing literature shows significant disparities in vaccination uptake in the United States. Using publicly available national-level data, we aimed to explore if county-level social capital (structural-level and community-level domain factors) can further explain disparities in vaccination uptake rate, adjusting for demographic and social determinants of health (SDOH) variables; and if urbanization level moderates the association between social capital and vaccination uptake.

METHODS: Bivariate analyses and a hierarchical multivariate quasi-binomial regression analysis were conducted; then the regression analysis was stratified by urban-rural status.

RESULTS: The current study suggests that social capital contributes significantly to the disparities of vaccination uptake in the US. The results of the stratification analysis show common predictors of vaccine uptake but also suggest various patterns based on urbanization level regarding the associations of COVID-19 vaccination uptake with SDOH and social capital factors.

CONCLUSION: The study provides a new perspective to address disparities in vaccination uptake by fostering social capital within communities. The moderation effect of urbanization may inform tailored public health intervention efforts to enhance social capital and promote vaccination uptake.

PO27 A Cost Effectiveness Analysis of The Nutrition Eating With Soul Study

Author(s): Mary J. Wilson, PhD, MPH, Elizabeth Crouch, PhD, Brian Chen, JD, PhD, Brie Turner-McGrievy, PhD, MS, RD, FTOS, Peyin Hung, PhD, MSPH

SUBMITTED BY: Mary Wilson

Assistant Research Professor/Project Manager

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PURPOSE: The Nutritious Eating with Soul (NEW Soul) Study is one of the first of its kind to recruit an African American (AA) only group to examine cardiovascular disease (CVD) prevention and changes in risk factors. The purpose of this study was to conduct a cost effectiveness analysis (CEA) of the NEW Soul Study, by examining direct costs to deliver the intervention, and indirect costs of participants associated with intervention adherence.

METHODS: Primary data were collected from AA adults (n=105) between 18-65 years old from the Midlands SC, enrolled in the NEW Soul Study, and identified as having overweight/obesity (BMI 25–49.9 kg/m²). After completing baseline assessment measures, participants were randomized to a vegan or low-fat omnivorous diet. The CEA is based on one-year outcomes. An incremental cost effectiveness ratio (ICER) was calculated based on direct and indirect costs and weight loss. Total Costs = Costs to deliver the intervention + participants' average cost of weekly groceries + average weekly costs of dining out. Quality adjusted life year (QALY) was calculated from Short Form-12 survey responses collected at baseline and one year.

RESULTS: The ICER was \$2,888.57/pound of weight loss. Results indicate the vegan group, as compared to the omni group was more cost effective, as vegan participants experienced greater weight loss and the intervention costed less. The ICER was \$13,145.92/QALY gained. Results indicate that the vegan group as compared to the omni group was less costly but experienced less gain in QALY (QALY gain: vegan = .0053 and omni = .0151).

CONCLUSIONS: The vegan diet intervention produced clinically relevant weight loss at less cost. Both diet groups experienced similarly minimal gains in QALYs. This study addresses health disparities associated with CVD; CEA results can help inform clinical and policy decisions related to future AA nutrition recommendations.

PO28 Nitrate, Phosphate, and Sulfate Pollution in Ambient Water Samples from Georgia, South Carolina, and Puerto Rico

Author(s): Chayna Rivers and Dr. Kenneth Sajwan

Submitted by: Chayna Rivers
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Water pollution in freshwater impacts human health, animals, and the ecosystem in numerous ways. It's characterized by the presence of excess physical, chemical or biological substances that changes the qualities of water and can harm human health, plants, and animals. The nature and concentration of pollutants in freshwaters, such as lakes and rivers, are not equally distributed throughout the world. The purpose of this study was to determine if the concentration of water pollutants varied in different regions of the U.S. and other countries. We investigated the hardness of water and pH values of water samples from various lakes and rivers in Georgia, South Carolina, and Puerto Rico. Additionally, we quantified the concentration of nitrate, phosphate, and sulfate in each sample using ion chromatography. We found that each water sample contained similar amounts of nitrate, phosphate, and sulfate, however, there were a few outliers suggesting that the chemical composition of water depends upon its location. Our water samples contained varying amounts of calcium while other elements such as aluminum and molybdenum made up less than 0.01 ppm. The total hardness of samples collected from a lake in Puerto Rico was 250.1 which was significantly higher than the total hardness of samples from Sumter, SC. The high levels of the hardness of the water in Puerto Rico indicate high amounts of calcium and magnesium compared to South Carolina or Georgia where the level of hardness was lower. Our study suggests that the areas in which we live contribute to the characteristics of our water.

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PO29 Examining Food Spending of DIET Guidelines Research Participants and Effects on Dietary Adherence

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OBJECTIVES: This study aimed to assess food spending among participants (n=63) in the Dietary Guidelines 3 Diet pilot study randomized to follow one of three healthy dietary patterns presented by the US Dietary Guidelines. An additional aim was to determine whether self-reported food costs were associated with dietary adherence. This study aims to identify cost-effective approaches to dietary prevention of Type 2 Diabetes Mellitus (T2DM).

DESIGN, Methods, and Instruments: African American adults ages 18-65 free of T2DM with a BMI of 25-49.9 kg/m² were enrolled and randomized to a Healthy US (n=21), Mediterranean (n=22), or Vegetarian (n=20) diet. After 12 weekly virtual classes, participants completed surveys collecting data on spending habits. Questions assessed weekly spending on groceries and dining out in addition to the cost of fruits and vegetables. Surveys also asked whether food spending had changed from the prior week. ASA-24 hour dietary recalls were administered at baseline and 12-weeks to assess dietary adherence.

RESULTS: Results forthcoming.

CONCLUSION: Food spending among participants in the Vegetarian diet group is expected to be lower compared to participants in the Mediterranean and Healthy US diet groups. We expect that diet-related costs will be significantly associated with participants' ability to adhere to assigned diets. Results will provide further insight for the US Dietary Guidelines.

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PO30 **Equity in Research: Increasing access among marginalized communities**

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Submitted by: Kimberly Briseño
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First launched in 2018, the Reach Every Reader Project is a multi-university, multi-year collaboration with the goal of creating an accessible literacy screening tool for children of all backgrounds. The project currently involves three Title I schools in the Sumter School District with 890 students from kindergarten to third grade. Over 75% of students and their families require some form of government assistance (e.g., SNAP). This project aims to represent students from all under-resourced communities and help professionals decrease barriers that inhibit a child's opportunities. Current barriers include access to technology, difficulty with communication, and chronic stress due to less access to resources. To address technology barriers, we suggest that students should be provided with internet access for virtual therapy, transportation options for in-person meetings, and the technology required for virtual services. To address communication barriers, parents should be explicitly taught how to create and use an e-mail address and provided with the option of virtual and/or paper-based communication. Interpreters should be provided for parents with language barriers. To address chronic stress, SLPs should provide a welcoming environment and check on the child's personal well-being prior to assessment or therapy. SLPs should communicate with teachers to identify and pull children who are often absent when they are available. Finally, when a child shares a difficult situation, SLPs should respond with emotional validation and acknowledgement of the situation and communicate with the child's parent to provide available resources. Addressing these barriers will ensure that all children with language-based needs, including those from marginalized and under-resourced communities, will receive the services and representation that they deserve.

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