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BOOK OF ABSTRACTS | HEALTH EQUITY

Fourth Annual Summer Research Summit on Health Equity Organized by the Center of Excellence in Health Equity, Training and Research, Baylor College of Medicine, Houston, Texas 77030, USA on May 20, 2021

ABSTRACT

Strengthening Our Commitment to Racial and Social Justice to Improve Public Health

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The fourth annual summer research summit organized by the Center of Excellence (COE) in Health Equity, Training and Research, Baylor College of Medicine (BCM) was held on May 20, 2021. The theme of this year's summit was 'Strengthening Our Commitment to Racial and Social Justice to Improve Public Health.' Given the ongoing pandemic, the summit was conducted virtually through digital platforms. This program was intended for both BCM and external audiences interested in advancing health equity, diversity and inclusion in healthcare among healthcare providers and trainees, biomedical scientists, social workers, nurses, individuals involved in talent acquisition and development such as hiring managers (HR professionals), supervisors, college and hospital affiliate leadership and administrators, as well as diversity and inclusion excellence practitioners. We had attendees from all regions of the United States, India, Pakistan and the Demographic Republic of the Congo. The content in this Book of Abstracts encapsulates a summary of the research efforts by the BCM COE scholars (which includes post-baccalaureate students, medical students, clinical fellows and junior faculty from BCM) as well as the external summit participants. The range of topics in this year's summit was quite diverse encompassing disparities in relation to maternal and child health (MCH), immigrant heath, cancers, vaccination uptakes and COVID-19 infections. Various solutions were ardently presented to address these disparities including community engagement and partnerships, improvement in health literacy and development of novel technologies and therapeutics. With this summit, BCM continues to build on its long history of educational outreach initiatives to promote diversity in medicine by focusing on programs aimed at increasing the number of diverse and highly qualified medical professionals ready to introduce effective and innovative approaches to reduce or eliminate health disparities. These programs will improve information resources, clinical education, curricula, research and cultural competence as they relate to minority health issues and social determinants of health. The summit received very positive response in terms of zealous participation and outstanding evaluations; and overall, it was a great success.

ABSTRACT 01

Disparities in Mortality Among Acute Myeloid Leukemia Related Hospitalizations

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Background: Acute Myeloid Leukemia (AML) outcomes are dependent on leukemia-specific factors such as cytogenetics and patient-specific factors, such as age and performance status. However, racial and socioeconomic disparities have become increasingly apparent. We analyzed in-hospital death among AML-related hospitalizations and evaluated for differences in sociodemographic characteristics, focusing on the effect of age and race.

Methods: We conducted a retrospective cohort study using the Nationwide Inpatient Sample (NIS) from 2009-2018. We included hospitalizations for adults with a diagnosis of AML based on ICD-9-CM and ICD-10-CM. We categorized patients' ages in groups of <60 years and ≥ 60 years and stratified them by reported ethnicity. Exposures of interest were patient socio-demographics, hospital characteristics and Elixhauser-comorbidity Index. Outcome of interest was in-hospital death. Statistical analyses included joinpoint regression to assess temporal trends and survey logistic regression to generate adjusted odds ratios (aORs) and 95% Confidence Intervals (CIs) to assess the independent associations between patient characteristics and mortality.

Results: Of 662,417 AML-related hospitalizations, 358,762 (57.6%) were inpatients ≥60 years. The overall rate of in-hospital death was 9.4%. Compared to patients <60, older patients experienced a higher rate of in-hospital death. In both age groups, mortality improved over time. Differences in mortality were observed based on gender, payer, hospital location and teaching status across all ages. For hospitalizations in patients ≥ 60, factors associated with in-hospital death included NH-Black race (OR 1.17; CI 1.08-1.28) and co-morbidities within the elderly Hispanic subgroup.

Conclusions and Global Health Implications: Previous studies have not evaluated racial disparities in the mortality of hospitalized patients with AML. Our results highlight the increased need to recognize the role of race and socioeconomic factors and their contribution to disparate outcomes in AML.

Keywords: • Acute Myeloid Leukemia • Hospitalization • Health Disparity • Racial Disparity • HCUP NIS

ABSTRACT 02

Violence Against Pregnant Women and Adverse Maternal/ Fetal Outcomes in the United States: Prevalence and Racial/Ethnic Disparity

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Background: Violence against women is relatively common, and violence during pregnancy is of special concern due to potential risk of maternal and neonatal complications. Previous studies using diagnostic codes to determine prevalence and health outcomes of violence against women used ICD-9 data and lack a standard of consistency.

Methods: Data from the 2002 to 2018 National Inpatient Sample (NIS) was used to analyze pregnancy-related hospitalizations of women aged 15-49 years. International Classification of Disease, Ninth Edition, Clinical Modification (ICD-9-CM) were utilized in the NIS until 3rd quarter of 2015, after which it transitioned to ICD-10-CM format. The exposure was violence against women whereas outcomes included preterm birth, intrauterine fetal demise, miscarriage, fetal growth restriction, hypertensive disorders of pregnancy, and gestational diabetes. Temporal trends analyses were performed using Joinpoint regression technique and adjusted survey logistic regression models were conducted to examine the association between exposure and outcomes.

Results: Certain sociodemographic characteristics including age 35-49 (2.88/1,000 hospitalizations), non-Hispanic White (2.66/1,000) and non-Hispanic Black (2.61/1,000) racial/ethnic groups, and lowest quartile income (2.91/1,000) were associated with higher prevalence of violence. There was an overall increase in these hospitalizations over the study period, the most significant being among non-Hispanic White patients (AAPC 18%, 95%CI = 10.3, 26.3). When compared to those with no exposure, individuals of all ethnic groups exposed to violence had increased risk of all adverse maternal/fetal outcomes.

Conclusion and Global Health Implications: Higher prevalence of violence was associated with certain sociodemographic characteristics. Disparities in maternal/fetal adverse outcome risk were noted between ethnic groups. Additional studies are needed to ensure accuracy of violence data using diagnostic codes.

Keywords: • Intimate Partner Violence • Pregnancy • HCUP NIS • Hospitalization • Assault

ABSTRACT 03

The Impact of Nativity and Ethnicity on Stillbirth Among the U.S. Hispanic Population

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Background: Several maternal demographic factors have been known to be associated with increased risk of stillbirth. The objective of this study was to examine risks of stillbirth by nativity and Hispanic ethnic origin.

Methods: We utilized Birth and Fetal Death data for the years 2014-2019 to conduct this cross-sectional study. We calculated stillbirth rates by nativity and ethnicity. We used the fetuses-at-risk approach to determine the stillbirth rates across gestational weeks. The adjusted Cox-proportional hazards regression model was utilized to evaluate the association between nativity and stillbirth, and it was also used to examine nativity and stillbirth when stratified by ethnicity.

Results: We observed that native-born Hispanic women had a slightly higher rate of stillbirth at 0.47% compared to the 0.42% among foreign-born Hispanic women ($p < 0.01$). When adjusted for covariates, foreign-born Hispanic mothers were 8% less likely (HR: 0.92, 95% CI: 0.90- 0.95) to experience stillbirth compared to their native-born counterparts. The highest stillbirth rate (5.6 per 1000 births) was among Puerto Rican foreign-born mothers, and the lowest stillbirth rate (3.3 per 1000 births) was among Cuban foreign-born mothers.

Conclusions and Global Health Implications: While overall foreign-born Hispanic mothers are less likely to experience stillbirth than native-born Hispanic mothers, this differs depending on ethnicity. Our results provide insight into the heterogeneity and outcome variation in stillbirth rates among nativity and Hispanic ethnic subgroups. Future investigations should consider ethnicity when possible as outcomes vary among different ethnic groups.

Keywords: • Stillbirth • Hispanic Population • Nativity • Ethnicity • Stillbirth Risk

ABSTRACT 04

Inpatient Palliative Care Utilization in Sickle Cell Disease: Temporal Trends and Factors Associated with Usage

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Background: Sickle cell disease (SCD) is a highly morbid condition notable for recurrent hospitalizations due to vaso-occlusive crises and complications of end-organ damage. Palliative care (PC) is a field that aims to provide holistic care to patients with serious chronic illnesses. Little is known about the use of inpatient palliative care services in adult patients with SCD. We examine inpatient palliative care utilization in SCD.

Methods: We conducted a retrospective cross-sectional study utilizing data from the National Inpatient Sample (NIS) from 2008-2017. Patients >18 years old hospitalized with a primary or secondary ICD-9-CM and ICD-10-CM diagnosis of SCD were included. Outcome of interest was PC service utilization using ICD-9-CM and ICD-10-CM diagnosis codes V66.7 and Z51.5. We used logistic regression models to examine socioeconomic and hospital factors associated with palliative care utilization.

Results: 987,555 SCD related hospitalizations were identified, of which 4442 (0.45%) were associated with PC service. PC service utilization increased at a rate of 9.2% per year (CI, 5.6-12.9). NH-Black and Hispanic patients were 33% and 53% less likely to have PC services compared to NH-White (OR 0.67; CI 0.45-0.99 and OR 0.47; CI, 0.26-0.84). Female patients (OR 0.40; CI, 0.21-0.76), Medicaid use (OR 0.40; CI, 0.21-0.78), rural (OR 0.47; CI 0.28-0.79) and urban non-teaching hospitals (OR 0.61; CI 0.47-0.80) had decreased likelihood of PC services use.

Conclusion and Global Health Implications: Utilization of PC during SCD related hospitalizations is increasing but remains low. Disparities associated with race and gender exist for use of PC services during SCD related hospitalization. Further studies are needed to guide evidence-based PC interventions for more comprehensive and equitable care of adult SCD patients.

Keywords: • Sickle Cell Disease • Palliative Care • Transitions of Care • Multidisciplinary Care Team • HCUP NIS

ABSTRACT 05

Racial Health Disparities in Colorectal Cancer Patients are Reflected in Hospital Stays

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Background: Colorectal cancer (CRC) is the third leading cause of death from cancer in both men and women in the United States. Late-onset colorectal cancer (LOCRC) or CRC diagnosed in older adults >50 years old has continued to decline. However, early-onset colorectal cancer (EOCRC) or colorectal cancer in patients under the age of 50 continues to rise at an alarming rate. Racial disparities exist among colorectal cancer with subsequent impact in patient prognosis but little is known about the impact of these disparities on the burden of hospitalizations among EOCRC and LOCRC populations. We hypothesize that significant healthcare disparities exist in colorectal patients and this is reflected in inpatient hospital stays.

Methods: This was a retrospective cross-sectional study utilizing data from the National Inpatient Sample (NIS) from 2008-2017. Using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM and ICD-10-CM), patients with diagnoses of colorectal cancer were identified. We conducted descriptive statistics to examine the sociodemographic and hospital characteristics for patients with EOCRC and LOCRC. We conducted survey multivariable linear regression model to assess the factors associated with increased length of stay and increased cost of hospitalization in EOCRC and LOCRC hospitalizations.

Results: The prevalence of hospitalization was higher in Non-Hispanic Black (NH-Black) and Hispanic EOCRC compared to Non-Hispanic Whites (NH-White) (prevalence 4.4, 4.5, and 2.7 per 10,000, respectively). Additionally, minority EOCRC patients had higher mean cost of hospitalization that was not attributed in length of stay compared to NH-Whites (NH-Black $13,947.01, Hispanic $14,331.03, NH-Others $16,016.68, and NH-Whites $13,692.85). For all colorectal cancer patients, the cost of hospitalization was proportional to income. NH-Black patients with diabetes and hypertension were admitted at a higher rate than NH-White in both EOCRC and LOCRC cohorts. Multivariate analyses reveal increased hospital costs among colorectal patients are significantly impacted by race and the presence of co-morbidities.

Conclusion and Global Health Implications: Taken together, we have shown that there are healthcare disparities reflected in inpatient hospital stays within colorectal cancer patients with distinct patterns within both EOCRC and LOCRC populations.

Keywords: • EOCRC • LOCRC • Hospitalization • Racial Disparity • HCUP NIS

ABSTRACT 06

Pregnancy-Associated Diabetes and Stillbirth by Race and Ethnicity Among Hospitalized Pregnant Women in the United States

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Background: Racial disparities in pre-existing diabetes (PDM) and gestational diabetes (GDM) remain largely unexplored despite associated adverse maternal and fetal outcomes. We examine national trends in PDM and GDM prevalence by race/ethnicity and the association between these conditions and fetal death.

Methods: A retrospective cross-sectional analysis was conducted using 2002 to 2017 pregnancy-related hospitalization records from the Nationwide Inpatient Sample. Exposures included PDM and GDM, and the outcome was stillbirth. Joinpoint regression was used to evaluate trends in prevalence over time. Survey logistic regression was used to evaluate the association between exposures and stillbirth.

Result: Overall, the average annual increase in prevalence was 5.2% (95% CI [4.2, 6.2]) for GDM and 1.0% (95% CI [-0.1, 2.0]) for PDM, over the study period. Hispanic (AAPC 5.3; 95% CI [3.6, 7.1]) and NH-Black (AAPC 0.9; 95% CI [0.1, 1.7]) women had the highest average annual percent increase in prevalence of GDM and PDM, respectively. After adjustment for maternal characteristics, odds of stillbirth were highest for Hispanic (OR 2.41:95% CI [2.23, 2.60]) women with PDM and decreased for women with GDM (OR 0.51;95% CI [0.50, 0.53), irrespective of race/ethnicity.

Conclusion and Global Health Implications: PDM and GDM prevalence is increasing in the U.S. with highest rates and average annual percent changes seen among minority women. Further, reasons for the variation in occurrence of stillbirths among mothers with PDM and GDM by race/ethnicity are not clear and warrant additional research.

Keywords: • Pre-Existing Diabetes • Gestational Diabetes • Race and Ethnicity • Diabetes Trends • Stillbirths • HCUP NIS

ABSTRACT 07

Temporal Trends and Racial Disparities in Pediatric Nonalcoholic Fatty Liver Disease-Associated Hospitalizations in the United States

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Background: Nonalcoholic fatty liver disease (NAFLD) represents a spectrum of disease characterized by accumulation of fat in the liver and is associated with co-morbidities linked to metabolic syndrome. The prevalence of NAFLD in children has increased in the U.S. over time with marked racial differences observed in geographically limited studies. This study aims to provide a current, nationwide analysis of temporal trends of pediatric NAFLD-related hospitalizations and associated co-morbidities as well as assess for racial/ethnic disparities.

Methods: A cross-sectional study was conducted using the National Inpatient Sample (NIS) from 2004 – 2018 and included NAFLD-associated hospitalizations of children aged 0-17 years based on ICD-9/10 diagnosis codes. Rates and patient characteristics were analyzed via descriptive statistics and associations via logistic regression. Temporal trends were assessed via joinpoint regression.

Results: There was an overall increase in pediatric NAFLD-associated hospitalizations with an average annual percent change (AAPC) of 6.6 with highest rates among Hispanic patients (AAPC=11.1) compared to NH-White (AAPC=4.1) and NH-Black (AAPC=2.1). Rates noted to be higher with increasing age, male gender, and Hispanic ethnicity and found to be significant via association model. Patient characteristics analysis revealed obesity as the most common co-morbid diagnosis (24.3%), with increased rates in Hispanic patients (32.3%).

Conclusion and Global Health Implications: Utilizing a nationwide database we demonstrated significant increases in NAFLD-associated hospitalizations with highest prevalence and rates seen in Hispanic patients. In addition, gender and co-morbidities showed notable correlation to these hospitalization rates displaying the need for further studies on these relationships and highlight the potential for interventions aimed at high-risk groups.

Keywords: • Pediatric NAFLD • Hospitalization • Temporal Trends • Health Disparity • HCUP NIS

ABSTRACT 08

Factors Associated with Vaccine Uptake During Pregnancy: A Retrospective Analysis

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Background: Vaccine uptake rates in pregnancy remain below target goals due to a convergence of factors. In particular, women of lower economic means and racial minorities typically have reduced rates of vaccine acceptance. This study aims to identify additional factors contributing to vaccine acceptance, within this population of women.

Methods: We performed a retrospective analysis of 11,500 pregnant women covered by Medicaid or ChipPerinate who received prenatal care during 2013-2021, assessing Influenza (flu) and combined Tetanus, Diphtheria, Acellular Pertussis (Tdap) vaccine acceptance in the patient population. We examined temporal trends in flu and Tdap vaccination rates using Joinpoint regression analyses and evaluated the factors associated with single or concomitant vaccine acceptance, during the study period and during the COVID-19 pandemic, using adjusted log-binomial regression models.

Results: In our population, 54% of patients received flu vaccination and 76% received Tdap. Tdap rates increased from 2013-2015, but have shown an overall decline since then, as with the flu vaccine.

Earlier entry to prenatal care (PR 6.32; CI 3.28-12.24) and pregnancy co-morbidity such as gestational diabetes (PR 1.32; CI 0.82-2.19) were positively associated with uptake.

In contrast, Black race was negatively associated with vaccine acceptance (PR 0.51 CI; 0.25-0.99). Otherwise, age and history of pre-pregnancy co-morbidities were not significant predictors.

Conclusion and Global Health Implications: Within demographic groups identified as at-risk for vaccine refusal, modifying factors further impact vaccine hesitancy. Identifying these elements will guide targeted patient efforts to promote vaccine uptake, both for routine prenatal recommendations and for COVID vaccination.

Keywords: • Vaccination in Pregnancy • Tdap Acceptance • Flu Vaccine in Pregnancy • Patient Communication • Vaccine Hesitancy in Pregnancy

ABSTRACT 09

Hospital Outcomes Among Infants with Interrupted Aortic Arch with Simple and Complex Associated Heart Defects

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Background: There is a lack of current, multi-institutional data regarding hospital outcomes of infants with Interrupted Aortic Arch (IAA).

Methods: We analyzed the Pediatric Health Information System database to identify infants with IAA hospitalized within the first 28 days of life who underwent aortic arch repair during 2004-2019. We classified IAA patients as simple or complex based on associated heart defects. We first compared mortality between the groups. Then we evaluated for associations with mortality using mixed-effects log-binomial multivariable regression, stratified by simple or complex.

Results: A total of 1283 infants were included (904 simple, 379 complex). Mortality was greater in the complex group (12% vs. 4.4%, $p \leq 0.001$). Factors associated with mortality in the simple group were low birthweight (aRR=3.74, CI: 1.83-7.66), non-22q11.2 deletion (22q11.2del) genetic diagnosis (aRR=4.78, CI: 1.24-18.45) and gastrointestinal anomalies (aRR=6.33, CI: 1.79-22.41). In the complex group, factors associated with mortality were male sex (aRR=2.32, CI:1.10-4.88) and central nervous system anomalies (aRR=4.90, CI: 2.09-11.48), while double outlet right ventricle (aRR=0.27, CI:0.08-0.93) was protective. Infants with 22q11.2del as compared to non-syndromic infants had increased length of stay (LOS) and hospital costs in the simple (27±31 vs. 37±40 days and $222,516 ± $228,647 vs. $279,751± $314,430, $p<0.05$ for both) and complex groups (33±37 vs. 45±41 days and $280,664± $325,689 vs. $340,127± $264,642, $p<0.05$ for both).

Conclusion and Global Health Implications: Presence of complex cardiac lesions is associated with increased mortality after IAA repair. The co-occurrence of extracardiac congenital anomalies and non-22q11.2del genetic conditions worsens mortality. Presence of 22q11.2del is associated with increased LOS and hospital costs.

Keywords: • Interrupted Aortic Arch • Infants • Hospital Outcomes • 22q11.2deletion Syndrome • Pediatric Health Information System

ABSTRACT 10

The Effects of Internet Usage on Breastfeeding Practices in Sub-Saharan Africa

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Background: Social determinants of breastfeeding behavior are complex. Internet access is considered a social determinant of health. We examined the relationship between breastfeeding practices and internet usage in Sub-Saharan Africa (SSA).

Methods: In this retrospective cross-sectional study, datasets including information on birth history, breastfeeding, and internet usage from Demographic Health Surveys on 27 African countries were combined to yield weighted estimates representative of the entire population. Bivariate analyses were used to examine the relationship between breastfeeding practice and respondents' sociodemographic characteristics. Adjusted survey logistic regression was utilized to analyze internet use and the likelihood that the youngest child in a household was breastfed while controlling for sociodemographic characteristics.

Results: Women who used the internet were 56% more likely (OR:1.56, 95% CI 1.41-1.73) to breastfeed. There was no significant difference in the adjusted odds of breastfeeding between women who used internet less than once weekly compared to those that did not use the internet (OR:1.20, 95%CI: 0.97-1.48). The adjusted odds of a woman who reported using the internet at least once weekly of breastfeeding were 41% greater (OR: 1.41, 95% CI: 1.19 - 1.67) than for her counterpart who did not use the internet, and 74% greater (OR: 1.74, 95% CI: 1.52 - 1.99) if she reported nearly daily internet use.

Conclusion and Global Health Implications: Internet access is positively associated with breastfeeding in SSA and will likely be crucial in maintaining a public health infrastructure as the continent develops.

Keywords: • Breastfeeding • Internet Access • Sub-Saharan Africa • Infant Health • Social Determinants

ABSTRACT 11

Racial and Ethnic Differences of Influenza-Associated Pediatric Hospitalizations and Deaths, 2008-2017

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Background: Influenza is one of the most common causes of acute lower respiratory infections in children, and its complications are a leading cause of morbidity and mortality. There is a paucity of pediatric data on influenza disparities among racial and ethnic minorities. Our study assesses if there are racial/ethnic differences in hospitalizations and mortality in children infected with influenza.

Methods: This was a retrospective cohort study using the National Inpatient Sample (NIS) from January 1st, 2008 through December 31st, 2017. We included children <18 years old hospitalized with a primary or secondary ICD-9-CM or ICD-10-CM diagnosis of influenza or its associated sub-types. The exposure was patient socio-demographics characteristics, and outcomes were influenza-associated hospitalizations and inpatient deaths. We generated odds ratios (aORs) and 95% confidence intervals (CIs) to evaluate the associations between patient characteristics and influenza hospitalizations and influenza-related mortality.

Results: There were 57,001,204 pediatric hospitalizations, 226,535 (0.04%) were associated with influenza. When compared to NH-White children, minority children were more likely to be hospitalized with an influenza diagnosis [Hispanics (aOR 1.25, 95% CI 1.17-1.33), NH-Blacks (aOR 1.21, 95% CI 1.17-1.33) and NH-Others group (aOR 1.11, 95% CI 1.04-1.19)]. There was no racial/ethnic difference in mortality. However, influenza-related mortality was noted among children on Medicare (aOR 7.02, 95% CI 6.08-8.10) and those admitted to large hospitals (aOR 33.16, 95% CI 2.56-429.85).

Conclusion and Global Health Implications: Minority children experienced a higher likelihood of influenza-associated hospitalizations but not mortality. Further research is needed to reduce the racial/ethnic disparities of influenza impact.

Keywords: Influenza • Influenza-Associated Hospitalizations • Pediatric Hospitalizations • Mortality • Racial/Ethnic Differences

ABSTRACT 12

Social Determinants of Health and Risk of Stillbirth in the United States

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Background: There is a paucity of literature examining the association of social determinants of health with stillbirth, particularly in the U.S. The aim of the study was to evaluate the impact of social determinants of health (SDoH) risk factors on stillbirth among pregnancy-related hospitalizations in the United States (U.S.).

Methods: We conducted a cross-sectional analysis of delivery-related hospital discharges using the 2016-2017 annualized data from the Healthcare Cost and Utilization Project's Nationwide Inpatient Sample. ICD-10-CM codes were used to select women with singleton stillbirth. Z-codes were utilized to identify SDoH risk factors and their sub-types. The association between SDoH risk factors and stillbirth was assessed using survey logistic regression models.

Results: We analyzed a total of 8,148,646 hospitalizations, out of which 91,140 were related to stillbirth hospitalizations, yielding a stillbirth incidence of 1.1%. The incidence of stillbirth among cases with any SDoH risk factor was 2.0% compared to 1.1% in cases without SDoH risk factors ($p < 0.001$). An increased incidence was observed for non-Hispanic Blacks (1.7%) when compared to non-Hispanic Whites (1.0%). The incidence of stillbirth was greater in hospitalizations associated with SDoH risk factors compared to those without the risk factors (2.0% versus 1.1% ($p < 0.001$).

Among patients with SDoH risk factors, the rate of stillbirth was highest in those designated as non-Hispanic Other (3.0%). Mothers that presented with SDoH risk factors had about 60% greater risk of stillbirth compared to those without [OR = 1.61 (95% CI =1.33-1.95), $p < 0.001$]. The SDoH issues that showed the most significant risk for stillbirth were: occupational risk [OR 7.05 (3.54-9.58), $p<0.001$], upbringing [OR 1.87 (1.23-2.82), $P<0.001$] and primary support group and family [OR 5.45 (3.84-7.76), $p < 0.001$].

Conclusion and Global Health Implications: We found pregnancies bearing SDoH risk markers to be associated with a 60% elevated risk for stillbirth. Future studies should target a variety of risk reduction strategies aimed at modifiable SDoH that can be widely implemented at both the population health level as well as in the direct clinical setting.

Keywords: • Stillbirth • Health Disparities • Social Determinants of Health • Pregnancy-Related Hospitalizations • HCUP-US NIS

ABSTRACT 13

Racial-Ethnic Disparities in Benzodiazepine Prescriptions for Anxiety in U.S. Emergency Departments

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Background: Benzodiazepines are commonly used to treat anxiety and panic disorders. White patients are more likely to receive a benzodiazepine prescription than non-white patients in different medical settings.[1] Racial-ethnic disparities have also been found in prescription of opiates from the Emergency room.[2] This study aims to analyze the relationship between benzodiazepine prescriptions for anxiety in an emergency department setting.

Methods: Data was obtained from the National Hospital Ambulatory Medical Care Survey (NHAMCS)[3] Years 2009-2018. Patients ≥18 years of age presenting to the Emergency department (ED) with anxiety were identified. Adjusted survey logistic regression was conducted to evaluate the patient characteristics and receipt of Benzodiazepines.

Results: This study analyzed 1,174,556,119 ED visits out of which 2.79% had a diagnosis of anxiety disorder. Prevalence of anxiety was higher in younger, female and White patients (67.3%). Rates of benzodiazepine prescription for patients with anxiety were higher for White and Hispanic at 29% and 28% respectively than for NH-Blacks and NH-Others (24% and 21% respectively). Compared to NH-Whites, NH-Blacks were 23.0% less likely to be prescribed a benzodiazepine from the Emergency department (PR = 0.77; CI = 0.68 – 0.87). Age or sex did not influence the prescription of a benzodiazepine or an SSRI.

Conclusion and Global Health Implications: These findings reveal that African-Americans with anxiety are prescribed benzodiazepines at significantly lower rates than their White and Hispanic counterparts in the Emergency Department. Further studies are needed to determine the root causes of these health disparities and how to combat them.

Keywords: • Benzodiazepines • Healthcare Disparities • Race Factors; Anxiety • Emergency Medicine

ABSTRACT 14

Gender, Racial and Ethnic Disparities in Iatrogenic Vascular Injuries Among the Ten Most Frequent Surgical Procedures in the United States

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Background: Iatrogenic vascular injuries (IaVI's) appear to be increasing, with disparate prevalence among genders, races and ethnicities. We aim to assess the risk of IaVI's across these characteristics.

Methods: Using the Nationwide Inpatient Sample from 2008 to 2015, we identified rates of IaVI's among the top ten most frequently performed inpatient procedures in the United States. Joint point regression was employed to examine the trends in the rates of IaVI's. We also calculated the adjusted odds ratios for IaVI's using survey logistic regression.

Results: During the eight-year study period, a total of 29,877,180 procedures were performed and 194,031 (0.65%) IaVI's associated with these procedures. The incidence of IaVI's increased over time with an average annual percentage change (AAPC) of 4.2% (95% CI: 3.1, 5.4; $P < 0.01$). Patients 70 years of age and older had the highest prevalence of IaVI's (12,244,082; 34.3%; $p = <0.01$). More females (105,747; 54.5%) suffered IaVI's during their hospital admission ($p < 0.01$) and Hispanics had the highest rate of IaVI's (18,596; 0.85%). Overall, patients from the lowest income quartile were least likely to suffer IaVI's (0.87 95% CI, $p < 0.01$) compared to the highest income quartile. Multivariable logistic regression revealed IaVI's were at increased odds of in-hospital mortality in NH-Blacks (OR 1.51, 95% CI 1.15-1.99, $p = <0.01$).

Conclusions and Global Health Implications: IaVI's increased significantly by 4.2% annually ($p < 0.01$). Healthcare disparities in IaVIs is remarkable among elderly, NH-Blacks and Hispanics. Our findings have significant implications for improving quality measures, surgical education efforts, and promoting equity for healthcare outcomes.

Keywords: • Iatrogenic Injury • Vascular Trauma • Healthcare Disparities • HCUP NIS • Increased Mortality

ABSTRACT 15

Health Disparities Experienced by Black and Hispanic Americans with Multiple Myeloma in the United States

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Background and Purpose: Incidence and death rates for multiple myeloma (MM) in non-Hispanic (NH)-Blacks are higher than those in NH-Whites. Hispanics and NH-Blacks continue to face multiple health disparities related to multiple myeloma (MM).

Methods: Using the National Inpatient Sample, a cross-sectional study of hospitalizations in patients with MM over 18 years of age was conducted. Joinpoint regression to assess temporal trends in the national incidence of in-hospital death among all MM hospitalizations was done. We conducted adjusted survey logistic regression to generate adjusted odds ratios to measure the likelihood of in-hospital death among MM-related hospitalizations.

Results: MM-related in-hospital mortality was higher in Hispanics compared to NH-Whites and NH-Blacks (6.2% vs. 5.3%, $p<0.01$). We found a statistically significant decline of in-hospital mortality among all MM patients except NH-Blacks. Multivariate analysis showed that NH-Blacks received fewer autologous stem cell transplants (ASCT) (2.8% vs. 3.8%, $p <0.01$), more blood product transfusions (23.0% vs. 21.1%, $p <0.01$), fewer palliative care consults (4.0% vs. 4.6%, $p <0.01$), less inpatient chemotherapy (10.8% vs. 11.2%, $p <0.01$), and utilized more intensive care (5.3% vs. 4.3%, $p <0.01$) than NH-Whites**.**

Conclusion and Global Health Implications: NH- Blacks with MM received treatments such as ASCT and chemotherapy at lower rates than other ethnic/racial groups. Our study suggests higher disease burden and more frequent hospitalizations. Hispanics and NH-Blacks had lower utilization of supportive care measures. Disparities in MM care for NH-Blacks and Hispanics necessitate urgent targeted interventions to ameliorate its effects.

Keywords: • Multiple Myeloma • Black Americans • Disparity • Treatment • Transplant • Hispanics

ABSTRACT 16

Evaluating Dietary Education Provided by Healthcare Providers to Pediatric Patients with Gastroparesis

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Background: Gastroparesis is defined as delayed emptying of the stomach.[1] Dietary modifications are the first-line treatment for gastroparesis.[2] Yet, we do not know what factors impact whether dietary education is provided to patients, including how often dietary advice is provided by a dietitian. The aim of this study was to determine the prevalence of pediatric patients with gastroparesis receiving dietary education, the types of recommendations given, how often a dietitian is involved, and the factors affecting these outcomes at our institution.

Methods: A retrospective chart review was performed on children 2- to 18-years-old diagnosed with gastroparesis based on standard diagnostic criteria. Using an adjusted binomial regression model, we identified patient demographic factors associated with dietary education, dietitian consultation, and diets recommended.

Results: Of the 161 patients who met the criteria, 98 (60.8%) were given dietary education and 42 (26.1%) were referred to a dietitian. The most common diet recommended by providers and dietitians was adjusting diet composition (26.5% and 47.6%, respectively). Key findings were that patients seen in the community vs. in the medical center outpatient setting were more likely to be recommended a low-fat diet; patients with nausea/vomiting were less likely to receive dietary education or be recommended an adjusted diet composition, and patients with severe symptoms were more likely to receive dietary consultation ($P < 0.05$ for data noted).

Conclusion and Global Health Implications: Dietary education is given by providers; however, socioeconomic, and clinical factors may affect what and where guidance is given. Furthermore, dietitians are underused despite their great value to gastroparesis management.

Keywords: • Pediatric • Diet • Gastroparesis • Dietary Education • Dietitians

ABSTRACT 17

African-Americans Multiple Myeloma Patients Undergoing Upfront Autologous Stem Cell Transplant Have Similar Survival Outcomes Compared to Whites: A Propensity-Score Matched Analysis

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Background: Limited access to novel therapies and autologous stem cell transplant (ASCT) has been considered responsible for lower survival outcomes in African-Americans (AA) affected by multiple myeloma (MM). Patients receiving ASCT would have equal healthcare access and hence, will nullify the impact of disparate health access on outcomes.

Methods: A total of 705 AA and whites MM patients who underwent auto-HCT at our institution from 2007 to 2015. We compared survival outcomes of AA versus whites who underwent upfront ASCT at our center via propensity-matched analysis. We 1:1 matched 125/126 (99.25) black patients to white patients. Clinical response, relapse, and progression were defined by the International Myeloma Working group criteria.

Results: Patients in both groups were well matched for age at transplantation, ISS stage, serum creatinine, response to induction therapy, induction, consolidation, and preparative regimens, and maintenance therapy. The median follow-up time for the cohort was 70.8. The overall response rate after auto-HCT was 119/125 and 123/125 patients in the AA and white group. The median progression-free survival (PFS) for the AA and the white groups were 44.6 and 51 months. The 4-year PFS rates in the AA and the white groups were 48% and 51.2%, respectively. The 4-year overall survival (OS) rates in the AA and the white groups were also similar at 78.5% and 80.9%.

Conclusion and Global Health Implications: On propensity score matching, AA multiple myeloma patients had similar response rates, PFS, and OS to auto-HCT as white patients. Using transplantation in AA should be a treatment priority to improve overall outcomes.

Keywords: Multiple Myeloma • Stem Cell Transplantation • Cellular Therapy • Propensity Score Matching • Chemotherapy

ABSTRACT 18

Acculturation and Mental Health

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Background: The purpose of this review is to examine and highlight the link between acculturation, mental health, and treatment effect.

Method: We searched PubMed/MEDLINE, PsycINFO, PsycARTICLES, CINAHL, EMBASE, Scopus, and Cochrane for English-language medical literature indexed from inception to April 30, 2021 using the search terms: migration, mental health, acculturation, ethnic identity, and mental health services. The search focused to capture all relevant published papers pertaining to association between acculturation, mental health and treatment effect.

Results: The findings of this review indicate that the process of acculturation can be a challenging life experience. The acculturation stress can have a greater impact on mental health. Moreover, the relationship between acculturation and mental health can vary across ethnic groups and generations. Living in a hostile environment, racial discrimination, urban violence, abuse by law enforcement officers, separation from their families, and fear of deportation are all stressful and traumatizing experiences. These traumatic experiences may exacerbate health risks such as posttraumatic stress disorder (PTSD), major depressive disorder, psychosis, increased substance use, and suicidality.

Conclusion and Global Health Implications: Acculturation and mental health have a complex relationship. The multidimensional elements (cultural values, beliefs, expectations, roles, norms, and cultural practices) must be learned and acknowledged by healthcare practitioners. Providers must be trained to identify critical aspects of immigrants' experiences that necessitate professional interventions tailored to their specific needs.

Keywords: Migration • Mental Health • Acculturation • Ethnic Identity • Mental Health Services

ABSTRACT 19

Redefining the Influence of Unconscious Stereotyping and Healthcare Disparities Encountered with Minority Patients: A Systematic Review

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Background: Unconscious stereotyping in U.S. healthcare is not often discussed but frequently occurs during healthcare encounters due to implicit biases and systemic barriers. This effect is heightened in low socioeconomic communities with large immigrant populations. Minority patients have reported feeling uneasy describing their medical conditions and social situations to their physician because of distress over discrimination.

Methods: A literature search was conducted using (utilizing) PubMed database and the keyword categories "biases, immigrants, healthcare disparity, language" in which synonyms were combined in "OR" combination and keyword categories were combined using "AND" combination. Of the 21 results, 13 were excluded: didn't address the experience of interest (7), outside the U.S. (3), abstract only (1), and didn't include population of interest (1). 8 articles remained from which two independent reviewers categorized common themes and synthesized concrete observations.

Results: After review, language barriers and physician attitudes emerged as major themes. Within language barriers, subcategories included: extra time associated with translators preventing their use (2), power dynamics in language discordance (2), poor translator training (3), and confidentiality concerns hindering translator use (5). Within physician attitudes, the main subcategory was unconscious biases preventing timely diagnosis or adequate treatment (6).

Conclusion and Global Health Implications: Our literature review revealed several areas in which minority patients are experiencing bias in their healthcare experiences, resulting in poor care. By understanding these experiences exist, physicians and healthcare systems can make policy changes aimed at their prevention. Research is still needed to better quantify the long-term effects of these experiences.

Keywords: Biases • Immigrants • Healthcare Disparity • Language, Policy Changes

ABSTRACT 20

The Perspectives of Black and Hispanic Families on Socio-Ecological Factors Influencing Dietary Behaviors

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Background: Healthy eating behaviors are encouraged for a healthy lifestyle, but children's diet quality is below the recommended guidelines. Diet-related disparities exist, with children from under-resourced, minority communities at greatest risk. These disparities increase obesity and disease risk. The Social-Ecological Model posits personal and environmental factors influence behavior. Therefore, we investigated parent and child perspectives of factors that influence dietary choices.

Methods: Parents/caregivers and 8-13 year olds (n=18) living in under-resourced Houston-area communities were recruited for a mixed-methods study (online surveys, telephone interviews, photographs). Mobile phones were used to take photographs of factors influencing healthy eating choices; photographs were discussed during interviews. Descriptive statistics were calculated for the surveys. Interviews were digitally recorded, professionally transcribed, and double-coded using hybrid thematic analysis.

Results: Parents/caregivers were female, 40-49 years old (61%), and minority (56% Black, 44% Hispanic). Children were female (56%), Black (56%), and received free/reduced-price lunch at school (95%). Mothers were well-educated (33%-some college, 22%-college degree, 11%-postgraduate degree) with an annual household income of $21,000-$41,000 (44%). Interview findings revealed that personal factors, including culture, beliefs, knowledge, skills, and time, influence mothers' choices for the home food environment. Children noted taste, preferences, and beliefs as personal factors influencing their dietary behaviors. Mothers exerted a strong influence on their children's dietary behaviors. Mothers and children identified availability, cost, and temptation as key environmental influences; mothers also shared that convenience and distance influenced food choices.

Conclusion and Global Health Implications: Understanding the perspectives and characteristics of families can provide direction on equitable strategies to improve healthful food resources for minority families living in under-resourced communities.

Keywords: • Diet • Black/African-American • Hispanic; Parents • Children • Socio-Ecological Model • Under-Resourced • Qualitative • Photovoice • Diet

ABSTRACT 21

The Effect of Metformin in MEN1 Related-Pancreatic Neuroendocrine Tumors

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Introduction: Metformin is a biguanide and is known as the first-line oral anti-hyperglycemic drug in treating type II diabetes. The oral medication has anticancer effects that are controlled through the inhibition of mitochondrial oxidation by activating adenosine monophosphate-activated kinase (AMPK) and inhibiting mTOR pathway. Metformin usage has been demonstrated to inhibit tumor growth and increase progression-free survival (PFS) of pancreatic neuroendocrine tumors (pNETs). Little is known about the efficacy of metformin use and pNETS in patients with MEN1 syndrome. The purpose of this study was to determine the association of metformin use and PFS of pNETS in patients with MEN1.

Methods: A single-institution retrospective extensive chart review was completed on patients who were enrolled on a long-standing MEN1 natural history protocol (NCT0001277). Eligible patients included those who were 18 years or older, who had at least five years of follow-up at our institution and who had a confirmed history of pNETs.

Results: Of 298 MEN1 patients, 110 were included in the study. Patient's pNETs ranged from localized, recurrent, multifocal or metastatic. Thirty-one patients had a history of metformin use and 94 did not. At age 65, the estimated probabilities of overall survival are 80% in the metformin patients and 83% in the non-metformin group. The metformin patients had a slightly higher frequency of pNET metastases (52%) than non-metformin patients (45%). The estimated effects of metastasis on mortality were slightly weaker in metformin patients, however (hazard ratios of 1.0 vs. 2.8). The hazard ratios are consistent with the null value of 1 with 95% confidence, and the differences between the two groups are also small. 11/41 (27%) of the non-metformin patients with metastases have multiple locations reported vs. 1/16 (6%) of the metformin patients ($p=0.15$ by Fisher's exact test). The metformin patients were more likely to have undergone surgery (72% vs. 47%, $p=0.023$ by Fisher's exact test). In both groups, surgery was associated with death at younger ages (in the full dataset, estimated hazard ratio 4.3, $p=0.006$ for the null hypothesis of $HR = 1$). Patient's sex did not demonstrate differences or interactions with other factors in the analyses above.

Conclusion and Global Health Implications: The effect of metformin on MEN1-related pNETS in a retrospective chart review are limited due to multiple confounding factors including metformin use due to surgical pancreatectomy in patients with aggressive disease (resulting in survival differences), obesity and insulin resistance-induced diabetes versus insulinopenic diabetes due to pancreatectomy, and variations in metformin duration among patients. Interestingly, the metformin group patients appeared to have less multiple location metastatic burden of disease when comparing with the non- metformin group. Further studies with matched groups and co-morbidities are needed to determine the anti-tumor effect of metformin.

Keywords: Multiple Endocrine Neoplasia Type 1 (MEN1) • Pancreatic Neuroendocrine Tumors • Metformin • Metastasis • Pancreatectomy

ABSTRACT 22

Provider Education on Public Benefits for U.S. Citizen Children in Immigrant Families

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Background: Though healthcare providers (HCPs) may help dispel misconceptions regarding resources available for children in immigrant families (CIF), little data exists identifying knowledge gaps about these resources amongst HCPs.

Methods: We administered a survey to HCPs at two Baylor College of Medicine (BCM) clinics assessing need for provider education on public resources available to CIF. We then created an education tool with information on these resources, which we sent to HCPs at three BCM clinics, along with pre-and post-surveys. We used Likert scales to assess frequency of immigrant parent concerns about accessing benefits, provider perception of patient empowerment, and provider confidence in counseling immigrant families. We tested knowledge using 2 multiple-choice questions and one scenario-based question.

Results: 15 providers responded to our initial survey. 60% said they would be interested in learning more about CIF benefits and 73% agreed there is a need for education on this topic. 20 providers responded to the pre-and post-surveys. Frequency of immigrant patient concerns about accessing benefits averaged to once a month. Confidence in counseling immigrant families significantly increased after the education tool ($p<0.01$), but perceived patient empowerment did not ($p=0.408$). Acquisition of knowledge significantly increased on the multiple-choice questions ($p<0.01$; $p<0.01$).

Conclusions, including Health Equity Implications: Our education tool increased both knowledge and confidence in counseling patients on benefits available to CIF. We hope to expand this project to empower a larger number of providers to help CIF access these resources.

Keywords: • Immigrant Health • Education • Children in Immigrant Families • Public Benefits • Social Determinants of Health

ABSTRACT 23

A Year in Review: A COVID-Related Resident-Led Psychoeducation Program for Underserved, College Bound Teens in Houston, Texas

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Background: Students have faced unprecedented challenges to their mental health during the COVID-19 pandemic. Psychiatry residents spearheaded a psychoeducation initiative for adolescents to address these challenges.

Methods: Over the past academic year, 10 Baylor General Psychiatry residents taught minority, low-income middle and high schoolers at Chinquapin Preparatory School about various mental health topics. Resident physicians presented on each topic in a middle school and high school session, each with 30-50 students.

Results: First, *Emotional Regulation* addressed emotional literacy and the role of emotions. In the *Bullying* and *Social Media* lectures, risk factors and consequences of bullying were covered. The *Anxiety* session examined manifestations of anxiety disorders and coping strategies. *Depression and Self-Isolation* addressed signs, symptoms, and prevalence of depression and crisis-related suicide resources. Finally, in the *Emotional Health and Personal Advocacy* lecture students and facilitators discussed social determinants of health and their impact on self-esteem. During all sessions, resident presenters highlighted when to seek professional help and facilitated discussions about pandemic-related mental health challenges. Adolescent core issues included: limited access to technology due to health disparities, altered academic expectations, stress associated with familial COVID illness and rising unemployment, and loneliness and isolation with virtual schooling.

Conclusion and Global Health Implications: The COVID-19 pandemic has had a significant impact on adolescent mental health. Limited social interaction and an entire year of virtual schooling led to more mental health referrals to the school counselor, emphasizing mental health awareness as a priority. Resource limitation requires the development of creative and cost-effective ways to provide psychoeducation and teach healthy coping skills.

Keywords: • Adolescent Mental Health • Coping Skills • Psychoeducation for the Underserved • COVID-19 • Pandemic-Related Mental Health Challenges

ABSTRACT 24
Impact of COVID-19 on an Urban Refugee Population

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Purpose: The COVID-19 pandemic has brought to light many systemic inequities in healthcare delivery. As medical communities work to address the disproportionate effects of COVID-19 on vulnerable populations, it is crucial to include refugees in the public health response. Language barriers, poor health literacy, and low socioeconomic status render refugee populations highly susceptible to negative outcomes from the COVID-19 pandemic. To better understand the refugee experience with COVID-19, we constructed and administered a survey amongst refugee populations in Houston, Texas.

Methods: Our 49-question cross-sectional survey was administered to 44 participants in Arabic, Burmese, Dari, English, Kiswahili, Nepali, Spanish, or Urdu with the use of refugee resettlement case managers acting as translators. The survey encompassed three domains, including a general knowledge assessment of COVID-19, subjective experiences with COVID-19, and risk communication practices within refugee populations.

Results: The majority of refugees surveyed admitted to worrying about the effects of COVID-19 on their community (88.6%). The negative consequences of the COVID-19 pandemic included financial adversity (65.1%) and significant disruption of children's education (62.8%). Although 50.0% of participants self-reported proficiency in English, translation services were used with 75.0% of participants to ensure full comprehension.

Conclusion and Global Health Implications: The implications of our findings suggest that local refugee populations require heightened support during the COVID-19 pandemic. Tailored interventions should encompass comprehensive translation and interpretation services, financial assistance, and academic interventions for refugee youth.

Keywords: • Public Health • Immigrant Health • Health Disparities • Refugees • Minority Health • Health Equity • COVID-19

ABSTRACT 25

The Perspectives of Hispanic Mothers on Factors Influencing Dietary Choices in their Families and Communities

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Background: Obesity disparities exist in Hispanic girls, and dietary behaviors may increase their obesity risk. Obesity prevention programs to help parents create an obesity preventive home environment are needed. The purpose of this study was to collect formative research from parents of 8-12-year old Hispanic girls about perceptions, expectations, and content for a healthy child obesity prevention program.

Methods: Mothers (n = 30) were recruited for a mixed-methods study (online surveys, interviews). Descriptive statistics were computed for survey responses. During the interviews, participants discussed responses to survey questions, including the importance of healthy eating, factors influencing dietary choices, and views of healthy foods in the Hispanic community. Interviews were digitally recorded, transcribed, and key point summaries were generated.

Results: Mothers were Hispanic (100%), 31–50 years old (93.3%), married (86.7%), and all had at least one 8–12-year old daughter (83.3%). The majority of mothers (83.3%) believed it was very important for children to eat healthy, and all mothers believed it was very important for parents to encourage healthy eating. Time (93.3%), costs (80.0%), convenience (73.3%), activities outside of the home (53.3%), and family preferences (46.7%) were identified as factors influencing dietary choices for families. Views varied regarding cultural influences on family's food choices. Most mothers (70%) believed that the Hispanic community has different views of healthy foods than other communities. Some mothers discussed the influence of traditional foods on food choices.

Conclusion and Global Health Implications: Examining parents' perspectives about dietary choices can provide insight on how to develop relevant and culturally acceptable child obesity prevention programs for Hispanic families.

Keywords: • Obesity • Prevention • Diet • Hispanic • Parents • Girls • Home environment

ABSTRACT 26

Factors Enhancing Retention in Employment for Underserved Populations as a Social Determinant of Health

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Background: Minority low-income post-secondary youth often demonstrate behaviors that make them at risk for unemployment (1). Emphasis on Social Determinants of Health (2) (SDOH) suggests that jobs foster important non-medical health improvement via meaningful work. Workforce programs facilitate employment (3) and a next step is to address job retention. Employment continuation of 40 youth who completed course work/practicum for health professions were assessed. Follow-up investigations identified secondary factors deterred job retention. Participants who acquired stable employment had negative SDOH affecting continuation. We attempt to answer the following: What are the behavioral factors subsequent to hiring that influence job retention; Can program linkages and equity strategies mitigate negative forces. Finally, can a program linked to a medical home, address risk components that affect job retention?

Methods: Data analysis used two methodologies to evaluate outcomes. First, for qualitative assessment, content analysis (4) documented the internal validity and reliability of job retention themes. Quantitative measures calculated the prevalence and scope of risk factors and their impact on program retention.

Results: Forty participants were followed, and secondary factors were identified that either enhanced or deterred job retention. Findings suggest that participants even with stable employment had to overcome additional negative social determinants of health factors that impaired job continuation.

Conclusion and Global Health Implications: The assessment, using thematic and demographic data, identified behavioral health, transportation and housing insecurity that impacted job retention. To maximize equity for underserved groups continual linkage to program is needed. Moreover, a medical home provides a trusted job portal and mitigates situational risks to job retention.

Keywords: • At-Risk Behaviors • Work Retention • Social Determinants • Minority Youth • Post-High School Employment

ABSTRACT 27

Second Look Day — A Key Tool to Improve the Diversity of Residents in the Department of Pediatrics

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Background: Texas Children's Hospital serves as the largest quaternary pediatrics hospital in Texas. In Houston, one of the most diverse cities in the country, Black/Latinx patients comprise over 40% of our patient population. The Department of Pediatrics has developed novel ways to enhance the diversity in our residency program to better match the patient population we serve.

Methods: The residency program collected data over the past 10 years on how many underrepresented in medicine (UiM) applicants are offered interviews are ranked to match and matriculate. Since 2013, the program has hosted a 2nd look day for UiM applicants. This year due to COVID-19, we created virtual UiM-focused open houses prior to the interview season. Second, residents sent personal reach-outs to UiM applicants to act as a resource. Third, 2nd look day was completely virtual and included a virtual social with faculty, fellows, and residents.

Results: Over the past 5 years, the number of UiM applicants interviewed has increased by 114%. 2nd look day attendance this year increased from 20-30% of UiM applicants invited to over 50%. Of the UiM residents who matched, 100% of them this year attended 2nd look day. Including this year, ~20% of the matched class has identified as UiM over the past 5 years.

Conclusion and Global Health Implications: With our department's initiatives, we have seen a significant improvement in the number of UiM applicants interviewed each year and matching at our program. These initiatives not only improved UiM representation in our department but also enrich the BCM community at large.

Keywords: • Diversity and Inclusion • Underrepresented in Medicine • Residency • Recruitment • Pediatrics

ABSTRACT 28

Transgender Cultural Humility Training for Health Professionals Who Deliver Care to People with or at Risk for HIV

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Background: Harris County is one of 48 counties identified with the highest HIV burden in the U.S. In 2017, 18 new HIV diagnoses were reported among transgender persons in Houston/Harris County (1.6% of all new HIV diagnoses that year). A majority of health professionals are unaware of the cultural barriers that affect the transgender community. Cultural humility training is needed to optimize healthcare access and outcomes for transgender people with, and at-risk, for HIV.

Methods: The Baylor College of Medicine-Houston AIDS Education Training Center and the Houston Health Department partnered with the National Alliance of State and Territorial AIDS Directors to provide a three-part training series focused on a framework to create transgender-inclusive spaces in healthcare settings. Participants were asked to complete an evaluation after each module.

Results: Of the 50 healthcare professionals who registered to attend the training series, a cohort of 34 participants attended all three modules (68%). Results of the quantitative evaluation data reflected participant's intent to change how services are provided in their organization as a result of attending (4.33 out of 5.00) and intent to seek additional training (4.67 out of 5). Qualitative feedback indicated a better understanding of the topic and examples of how the information may change practice.

Conclusion and Global Health Implications: Cultural humility training led by expert trainers are an effective way for healthcare professionals to learn about frameworks for creating transgender-inclusive spaces in healthcare settings. Training such as these may lead to improvement of health equity among minority populations with or at risk for HIV.

Keywords: • Transgender Health • HIV Disparities • Health Equity • Cultural Humility • HIV Education

ABSTRACT 29

A Cross-Sectional Survey of the Infant Mortality Among the Black Population in the U.S.

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Background and Objective: We describe Black infant Mortality in 2018 among U.S. Counties.

Methods: Publicly available data with reliable rates from the CDC WONDER Linked Birth/Infant Death Files provided non-Hispanic Black infant death rates. Socioeconomic data were from the Robert Wood Johnson County Health Rankings and Roadmaps. Multiple regression and Studentized, Jack-knife and DFIT analyses was conducted for outliers.

Results: Forty-one counties were identified. Statistically significant correlations with non-Hispanic Black infant mortality were found for non-White-White segregation index ($r=0.33$, $p=0.03$), percent Black children in poverty ($r=0.43$, $p=0.005$), overcrowding ($r=-0.59$, $p<0.001$) Black household income ($r=-0.40$, $p = 0.009$), and percent severe housing cost burden ($r=0.41$, $p=0.007$). Due to high collinearity, the final multiple regression analysis included only the non-White-White segregation index and percent severe housing cost burden, both of which were significantly associated with Black infant mortality ($p<0.001$). Analysis for outliers identified Bronx County, NY (New York City) and Jackson County, MO (Kansas City) as having unusually lower black infant mortality rates than that predicted by the regression model, while Duval County, FL (Jacksonville) and Hamilton County, OH (Cincinnati) had unusually high rates.

Conclusion and Global Health Implications: Analytic epidemiologic research designed *a priori* is required to test hypotheses generated by these descriptive data. Two such hypotheses are that social determinants of non-Hispanic Black infant mortality are not deterministic and that racial resilience and racial fragility are not anonymous. Future research pertaining to positive and negative deviant communities could provide important insights into community resilience as well as information about the roots of adverse mortality among non-Hispanic Black Infants.

Keywords: • Infant Mortality • Health Disparity • Black Population • County Data • Social Determinants

ABSTRACT 30

A Pilot Public Health Genetics Seminar in Race and Genetics

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Background: The field of genetics continues to grapple with issues of race and racism, but adequate exposure to these issues in graduate training programs is lacking. To address this, we designed a race and genetics seminar for Public Health Genetics (PHG) students at the University of Washington, United States.

Methods: Inspired by models of community engagement and education in race and justice (Thurber, 2019), we conducted a seminar series to examine historical/current perspectives on race, its process of geneticization, and its role in health inequities. We then developed a framework for evaluating PHG core coursework and making suggestions for areas of anti-racist intervention. Finally, we disseminated an exit survey to seminar participants to gain feedback on its utility.

Results: The responses indicated that participants' perceptions about race, racism, and genetics changed and that they gained knowledge about these topic areas. Participants also shared insights on the most and least helpful aspects of RGSS and provided suggestions for how to incorporate concepts learned in the seminar into the broader PHG training program.

Conclusion and Global Health Implications: The framework of this seminar consisted of a moderated group discussion, coursework evaluation, and method of evaluation via exit survey responses. It can be widely applied to explore similar discussions regarding race and racism in other graduate and professional training programs. This seminar can educate future scientists about structural racism in the field of genetics and expose its negative impacts on health and healthcare. Critically evaluating the science, we produce is of prime importance to dismantling structural racism in biomedical research and practice.

Keywords: • Health Equity • Race • Genetics • Graduate Education • Community engagement

ABSTRACT 31

An Institutions' and Healthcare Workers' Guide to Combating Healthcare Disparities and Subconscious Negative Stereotypes: A Systematic Review

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Background: History has demonstrated that global health crises create an increased amount of negative stereotypes against certain minority groups. The Asian American community for instance has encountered these effects with the COVID-19 global pandemic. Our focus is to discuss the implicit biases encountered in society, including in medicine that are at times neglected to be emphasized as deleterious.

Methods: This study systematically reviews literature from 2003-2020, focusing on subconscious negative stereotypes and implemented policies. Our interest was primarily on the limited proposed solutions aiming to diminish the stereotypes. We discuss the discrimination that occurs due to the negative stereotypes and the suggested policies. In addition, we aim to contribute new resolutions and tactics benefitting the institutional and the clinical level of healthcare.

Results: The unconscious biases were prevalent in minority communities, specifically we found that the COVID-19 pandemic amplified stereotypes towards Asians and Blacks in the U.S. The discrimination encountered is due to in-group vs. out-group mentality. Furthermore, unconscious biases occur in professions with an authoritative role; this creates a dissociation when minorities seek these professions like in healthcare– subsequently, medical care is avoided.

Conclusion and Global Health Implications: Biases generate division, discrimination, and distrust. Divisions are exacerbated when uncertainty and anxiety are present like in a global pandemic. In order to dissipate the division, cultural sensitivity and tolerance should be at the forefront. An emphasis on intangible values and cultural similarities between other races and social groups will diminish the disparities within healthcare.

Keywords: • Negative Stereotypes • Discrimination • Pandemic • Unconscious Biases • Minority Groups

ABSTRACT 32

Celebrating Ethnically Unique Names in the Healthcare Environment

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Background: Teaching learners how to introduce themselves to patients requires a specific skill set. Recognizing when a learner needs guidance inpatient/provider communication is an important part of clinical education. One learner, a female physician of South Asian descent, presented herself to a patient using an easy-to-pronounce nickname, not preceded by her professional title. Her demeanor was notable for diminutive stance with head tilted downward. The learner explained that because her name was difficult to pronounce, she began addressing herself with a Westernized monosyllabic word rather than "Doctor."

Methods: The teacher reiterated the importance of upholding an upright stature, smiling comfortably, and maintaining direct eye contact. The teacher identified the learner's professional degree as a testament to her hard work which should be acknowledged. The teacher encouraged the learner to embrace the pronunciation of her ethnically unique name and that taking pride in her background is pivotal to celebrating a culturally diverse workplace.

Results: The learner adopted the recommended verbal and nonverbal skills. At the time of graduation, the learner expressed appreciation for the skills that she had cultivated and the positive impact it created in her professional relationship with patients and peers alike.

Conclusion and Global Health Implications: Self-acknowledgement of ethnically unique names and recognition of earned professional degrees contribute to a positive and productive work environment. Cultivating and celebrating a globally diverse work environment starts by embracing and sharing our unique names with our patients and colleagues alike. Reiterating the universal value of verbal and nonverbal communication remains integral to the art and practice of medicine.

Keywords: • Nonverbal Communication • Ethnically Unique Names • Provider Diversity • Women In Medicine

ABSTRACT 33

"Even Though the Cage is Made of Gold, it's Still a Prison": A Qualitative Study of Immigrant Caregiver Barriers in Access to Care and Public Benefit Support in the United States

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Background: Children in immigrant families (CIF) comprise ~25% of United States children and live in families with high levels of poverty and food insecurity. Studies support a recent decline in public benefits enrollment among CIF. We aimed to explore immigrant caregiver perceptions on barriers to child healthcare and public benefit use.

Methods: We developed a qualitative semi-structured interview guide using an iterative process informed by literature and content expertise. We performed purposeful sampling to recruit immigrant caregivers of hospitalized children, and trained facilitators conducted interviews in English or Spanish in March 2020. Interviews were recorded, transcribed, and translated to English. Three authors coded transcripts using Dedoose and identified themes using thematic analysis.

Results: Twelve caregiver interviews revealed barriers to benefit and healthcare use including government mistrust, fear of deportation, discrimination/racism, intimidating application processes, misinformation on benefit qualification, and language barriers. Trusted information sources included healthcare providers, Univisión/Telemundo, and low-cost Spanish clinics. Recommended interventions included counseling on how resource use affects immigration status, use of Spanish interpreter services, and legal referrals.

One (female) caregiver reported, *"We left crying because of the way that person treated us, because I tell you, racism still exists. […] But don't they know that we're all human beings, […] that if we all helped each other, this would be a better world?"*

Conclusion and Global Health Implications: Immigrant parents expressed fear, discrimination, mistrust, and difficulty with service navigation as barriers to accessing resources. Hospital partnership with trusted community organizations to connect families with resources may mitigate these barriers.

Keywords: • Qualitative Study • Immigrant Health • Access to Healthcare • Health Disparities • Health Equity • Social Determinants of Health

ABSTRACT 34

Sociology Education, Empathy, and Racial Beliefs Among Pre-Med Students

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Background: The field of medicine is often viewed as largely objective and, therefore, fairly immune to qualitative biases. Preparation and training for healthcare professions usually maintain an emphasis on objective, scientific knowledge, with less educational focus on more qualitative sciences such as sociology. Only recently has there been an increasing focus on "soft skills" for physicians, with the recent institution of the CASPer exam as a requirement for many medical colleges in addition to the Medical College Admissions Test (MCAT). Racial disparities in medicine have been documented to be linked to structural factors such as socioeconomic status, the environment, and access to quality healthcare. However, even after controlling for these more objective factors, racial disparities in medicine persist. The lack of educational focus on the more qualitative studies and "soft sciences," exacerbated by the lack of conversation around race, contribute to the manifestation of hidden biases that ultimately harm people in the environments where they go to be healed. The purpose of this study was to explore the relationship between taking a college-level sociology course, empathy, and endorsement of false racial beliefs.

Methods: This pilot study was performed with IRB approval and was not funded by grants, as it was an exploratory study to determine future courses of study. This pilot study consisted of surveys and interviews. From late February 2021 to April 26, 2021, a total of 41 completed survey responses were obtained from a sample of all pre-med students at the University of Tulsa and a total of six interviews were conducted from a sample of pre-med students who were members of three pre-health organizations at the University of Tulsa (MedX, Alpha Epsilon Delta, and TU Global Health Brigades). The survey was distributed by forwarding an email containing the survey link to the head of pre-med advising to be sent to all pre-med students (a total of about 200). Interviews were conducted via Zoom and participants were recruited by forwarding a recruitment email to the email lists for the three pre-health organizations aforementioned.

Results: Survey data indicated that there was a negative relationship between empathy and endorsement of false racial beliefs in the survey sample (higher empathy was correlated with less endorsement of false racial beliefs). The interview data showed that pre-med students are much more likely to take courses that are required or that they feel would help with the MCAT and also revealed that complexity in how the course is taught influences what students take away from it; for example, courses with mainly readings and papers instead of class discussion and touching on a broad range of topics instead of going in-depth on specific issues, resulted in students knowledge of general sociological topics (enough to do well on an exam or write a paper) but lacking in knowledge of race and health.

Conclusion and Global Health Implications: These data show that the way a sociology course is taught can significantly impact the level of empathy change that is seen in students after taking the class as well as what students are able to learn from it in terms of addressing false racial beliefs. I propose that a required sociology course that focuses on social determinants of health like race and socioeconomic status can aid in alleviating racial disparities due to bias.

Keywords: • Empathy • Race • Sociology • Bias • Medicine • Pre-Med

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ABSTRACT 35

Early Impact of COVID-19 on Registered Nurses Personal & Professional Lives

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Background: The nursing profession has faced numerous challenges. Nursing retention may be strained during this global pandemic with nurses deciding to leave the profession due to health and safety concerns. Nursing shortages impact all under-represented groups. This study examines the experiences of nurses in the early months of COVID-19. The research question: What are the personal and professional experiences of nurses related to COVID-19?

Methods: Data were analyzed using thematic analysis as an inductive semantic approach to identifying themes.

Findings: All nurses experienced some levels of stress and distress (early-onset recognition of depression) with long shifts and even longer workweeks. Family concerns for safety and need for self-care were expressed by a majority of the participants. The need for consistent messaging during a pandemic was voiced by participants. Four major themes evolved from the analysis of these reflective papers: Naivete, Surprise, Challenges, and Consequences.

Conclusion and Global Health Implications: Registered nurses recognized their stressors in the first 3 months of the pandemic and actively sought to change lifestyle patterns that complied with public health recommendations. Adaptation and resilience were evident through creative and alternative measures to connect with family, friends, and colleagues. Yet, several reported that experienced nurses in their workplaces retired early or left the profession as the benefits of their career did not outweigh the perceived costs of the pandemic. Academic institutions and healthcare employers need to develop strategies, training and curriculum to assist nurses in self-care measures that can be staged to meet the potential long-term career goals of this vital workforce.

Keywords: • COVID-19 • Distress • Nursing Workforce • Resilience • RN

ABSTRACT 36

Spanish Proficiency Among Texas Dermatology Residents: A Survey Study

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Introduction: Texas is home to a diverse population, with an expected increase in this diversity in the coming decades. In 2019, 39.7% of the Texas population reported to be Hispanic/Latinx, an 8% population increase compared to 2018.[1] Many Texans speak Spanish as their primary language. Language discordance between patients and providers is associated with poorer health outcomes, and professional interpreter services are often underutilized in a clinical setting.[2-5] With the rising population of limited English proficiency (LEP) Spanish-speaking patients, it is important to assess the preparedness of dermatology residents to treat these patients and to identify avenues for improved education opportunities.

Methods: Through an anonymous online survey, we assessed the comfort level and self-reported Spanish proficiency of current Texas dermatology residents regarding treatment of LEP Spanish-speaking patients. We assessed Spanish education subjective proficiency improvements.

Results: We received 58 responses from 96 current Texas dermatology residents. Twenty-three (40%) reported they were Spanish speaking. Seventeen (30%) reported they "rarely" or "never" use a translator during patient encounters. Thirty-two (55%) reported a Spanish course was available at their medical school. Of those who took a Spanish course in medical school, 52.9% considered themselves "more comfortable" with Spanish encounters versus 19.5% who did not take a similar course.

Conclusion and Global Health Implications: There remains a deficit in Spanish-speaking Texas dermatology residents. Given the anticipated inequity of Spanish-speaking patients to providers, medical schools should consider the addition of Spanish courses and patient encounters to their curriculum. Texas dermatology program directors should note Spanish proficiency when considering applicants.

Keywords: • Dermatology • Spanish Language • Education • Limited English Proficiency • LEP • Health Disparities

ABSTRACT 37

Barriers to Doula Care During the COVID-19 Pandemic and Implications for Maternal Health: A Qualitative Study

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Background: In the United States, maternal and infant mortality disproportionately affects women of color, particularly African-American mothers. Doulas have been proposed as one solution to reduce maternal health disparities by serving as advocates for their clients in a healthcare setting and helping families navigate the birth space. Doula support has been found across multiple studies to improve maternal health outcomes and is associated with lower rates of preterm birth and cesarean sections. However, the new social and economic conditions of the COVID-19 pandemic have posed new challenges for accessing and providing doula care.

Methods: Thematic analysis was conducted on 17 semi-structured interviews with practicing birth doulas in the United States. Demographic data including race, gender, location (city and state) and number of years in practice was also collected. During the interview, participants were asked to answer a set of pre-determined, open-ended questions. Interviews were conducted through Zoom, audio- and video-recorded and transcribed through a web-based transcription service. Themes were determined inductively by examining patterns of ideas that were articulated by multiple participants.

Results: Based on the data, 4 main themes arose that pointed to new and existing barriers that limit people from accessing doula services and prevent doulas from providing quality care during the pandemic. The themes include financial barriers for clients and doulas, restrictive hospital policies, difficult communication with medical staff and lack of diversity in the doula community. Participants also noted ways to address these barriers such as grants for low-income and free doula work, education about the role of a doula, constant communication and outreach with hospital systems, and diversity, equity, and inclusion training through virtual platforms.

Conclusion and Global Health Implications: With large disparities in maternal and infant health, policies and strategies that allow for sustainable doula support in low-income and minority communities are incredibly important. Our research highlights a demand for increased collaboration between doulas and hospital administration, financial investment in the doula profession, improved virtual communication with medical providers and diversity & inclusion efforts within the doula community. Such efforts may alleviate barriers for doula care during large public health crises.

Keywords: • Maternal Health • Doula Care • Birth • Pregnancy During COVID-19 • Health Disparities

ABSTRACT 38

The Influence of Race and Ethnicity in Therapeutic Dosing Among Patients Newly Treated for Painful Diabetic Peripheral Neuropathy

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Background: The purpose of this study was to investigate the association between race and ethnicity and the likelihood of receiving a therapeutically effective dose of non-opioid pain medications among insured adults newly diagnosed with diabetic peripheral neuropathic pain. Painful Diabetic Peripheral Neuropathy (DPN) is a common complication of diabetes that contributes to poor functioning and lower quality of life. Prior studies have identified racial and ethnic disparities in pain treatment using opioids, particularly in emergency room departments. However, less is known about racial and ethnic differences in non-opioid pain treatment for chronic conditions such as diabetic peripheral neuropathy treated in the primary care setting.

Methods: Based on prior studies showing disparities in clinical recognition of DPN by race and ethnicity, we hypothesized that race and ethnicity would be associated with DPN pain treatment. Our study sample included 1,252 adults enrolled in the Diabetes Telephone Study, a negative randomized controlled trial that investigated treatment outcomes via automated monitoring of patient treatment experiences. A post-hoc analysis was conducted to evaluate the relationships between receiving a therapeutically effective dose during the 12 months following treatment start and patient characteristics (race/ethnicity, gender, neighborhood deprivation, medication drug class, pain severity, chronic pain, most recent A1C, BMI, language spoken, Medicare, Medicaid). Descriptive statistics were assessed using Student's t-test and contingency tables (chi-squared tests). We also conducted a logistic regression analysis to assess the independent association of race and ethnicity and the outcome.

Results: Anticonvulsants and antidepressants were prescribed most frequently. About half of all patients within the study received a therapeutically effective dose of medication. Of the variables examined, only pain interference [3rd quartile: 1.76, (1.21,2.55)], 4th quartile:1.95, (1.25, 3.03)] and type of medication prescribed [3.62, (2.71,4.84)] were statistically significantly associated with receipt of a therapeutically effective dose.

Conclusion and Global Health Implications: Race/ethnicity were not associated with receiving a therapeutically effective dose. Compared to prior studies, we did not observe differences in dosing by race and ethnicity. This may suggest that disparities are primarily related to opioid prescribing in acute settings of care. However, more analysis is needed to confirm these findings.

Keywords: • Therapeutic Dosing • Diabetic Peripheral Neuropathy • Race and Ethnicity • Health Equity • Social Determinants

ABSTRACT 39

Medical Students' Knowledge and Attitudes Toward Sex Workers and their Occupational Risk Factors in New Orleans

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Background: Sex work is defined as the exchange of sexual services for goods, money, or other services. The combination of criminalization and stigma surrounding sex work disincentivizes sex workers from disclosing their profession and impedes access to comprehensive care. Medical education provides an entry point to improve this provider-patient relationship and promote better health outcomes for the sex work community.

Methods: Medical students at Louisiana State University and Tulane Schools of Medicine in New Orleans were invited to participate in an online survey consisting of true-or-false and Likert scale statements regarding their knowledge of and attitudes towards sex work. Descriptive statistics were analyzed in SPSS.

Results: A total of 308 respondents completed the survey. Our findings showed that 76.3% of participants agreed that decriminalization of sex work would improve society's health. 77.5% of participants would like more about sex work included in their medical education.

Conclusion and Global Health Implications: These results demonstrate the overall positive attitude towards sex work amongst medical students in New Orleans and their interest in incorporating more sex work-specific education into medical school curricula. Addressing the demand for medical education inclusive of sex workers' health care needs would better prepare future physicians to provide appropriate quality of care for this marginalized population.

Keywords: • Sex Workers • Obstetrics and Gynecology • Reproductive Health • Medical Education • Primary Care

ABSTRACT 40

Minority Older Adults' Emotional Well-Being and Use of Technology During COVID-19 Social Isolation

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Background: Stay-at-home orders during the COVID-19 pandemic may lead older adults to be more susceptible to social isolation and loneliness. However, increased isolation may also compel them to overcome barriers and engage with technology to maintain their social networks and sense of belonging. The objective of our study was to understand how the coronavirus disease 2019-related stay-at-home order affected older adults' activities, use of technology, and sense of loneliness.

Methods: This was a cross-sectional study of 113 older adults from BakerRipley in Houston, Texas. Phone interviews were conducted between April 20, 2020 and May 1, 2020. Houston's stay-at-home-order had been in effect since March 24, 2020.

Results: 53 older adults were included. All of our respondents were following the stay-at-home order, 98.1% agreed with social distancing, and 79.2% had internet access. During the pandemic, older adults showed statistically significant increases in messaging ($p = .004$), video calling ($p < .001$), and social media use ($p = .006$). Age differences in messaging ($p < .001$), video calling ($p = .01$), and social media use ($p < .001$) were also present. There were no statistically significant relationships between age group, living situation, or frequency of technology use and perceived loneliness. Thematic analysis revealed that older adults with frequent family contact feel supported, older adults find happiness in spirituality, older adults derive social support from community venues, and self and social isolation do not equate to loneliness.

Conclusion and Global Health Implications: Older adults are adapting to unprecedented challenges, perhaps better than anticipated. During the stay-at-home order, older adults increased their engagement with technology and expressed interest in technology classes. To better support older adults, community venues should consider creating instructional materials or hosting educational sessions to teach older adults more about common technology platforms.

Keywords: • COVID-19 • Older Adults • Technology • Social Isolation • Loneliness • Well-Being

ABSTRACT 41

Tips and Training to Respond to Microaggressions in Healthcare: A Systematic Review

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Background: Patient microaggressions affect practitioners in all fields of healthcare. In multiple studies, healthcare professionals reported high rates of patient microaggressions and discrimination.[1–5]

Methods: The systematic review of PubMed, PsycINFO, Medline, ERIC and MedEdPORTAL was conducted from July 2020 to August 2020 to identify recommendations and solutions for healthcare professionals on responding to patient microaggressions.

Results: Our review identified 26 studies that provide recommendations and training for healthcare professionals to address patient microaggressions. Twenty studies outlined recommendations for healthcare professionals and systems on how to respond to patient offenses. These 20 studies were grouped into establishing a supportive culture, addressing the microaggression, supporting the victim, discriminatory requests, and institutional responses. Six articles described training that equips providers with tools to address patient microaggressions. Training included the ERASE framework; Stop, Talk, and Roll; interrupting microaggressions; and the OWTFD tool.

Conclusion and Global Health Implications: Findings show that recommendations and training for the response to microaggressions are emerging, and results of training are encouraging. Healthcare professionals should be empowered to support each other and address patient microaggressions.

Keywords: • Microaggressions • Discrimination Training • Systematic Review

ABSTRACT 42

The Global Surgery Research Toolkit Project: A Global Survey of Students, Trainees, and Early-Career Providers

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Background: The Global Surgery Student Alliance (GSSA) was founded in 2017 to educate, inspire, and unite students through engagement and mentorship with global surgeons, obstetricians, gynecologists and anesthesiologists. One early initiative of the organization was to promote research equity across the nation and globe through the use of a research toolkit accessible to all members. The use of the research toolkit was analyzed through an international survey promoted online.

Methods: The research toolkit is accessed through the GSSA website and often promoted by individual chapters to their members across the country. To analyze the use of the toolkit, a questionnaire was distributed via email, social media, and through the website between June 2019 to March 2021. The primary outcome measure will be based on those who are using the Research Toolkit for global surgery research purposes vs. other purposes. Individual survey responses with greater than 50 percent of questions completed will be included in the final analysis.

Results: A total of 63 responses were recorded during the study period, one response was excluded due to a response rate of less than 50%. Of the 62 included responses, a total of 24 countries were included across six continents. The United States represented 50% (31/62) responses followed next by Rwanda (4, 6.45). Barbados, Brazil, Germany, India, Pakistan, and Syria each recorded two responses. A total of 51 medical institutions were represented. A strong majority of respondents were medical students (47, 75.8%) followed by residents (7, 11.3%) and faculty (3, 4.8%). Respondents were primarily interested in conducting research projects (58.1%), non-specific interest in using the toolkit (9, 14.5%), personal education (8, 12.8%), and finally, student and resident education (8, 12.8%). Only one survey respondent (1.61%) was interested in collaborative efforts. A total of 26 respondents (41.9%) became aware of the survey through the GSSA website, 12 (19.4%) through GSSA social media posts (Facebook, Instagram, or Twitter), and another 10 respondents (16.1%) via GSSA emails.

Conclusion and Global Health Implications: The GSSA Research toolkit was created to promote research equity across the globe and empower medical trainees to produce quality analyses of global surgery. The field of global surgery is rapidly growing and infrastructure for research mentorship and practical steps to improve research skills may be lacking within certain regions. Among respondents, the primary desired use of the toolkit is for conducting global surgery research projects. This toolkit has a wide reach in terms of representing medical institutions and countries and provides a promising start to research infrastructure in the training of the next generation of global surgeons.

Keywords: • Global Health • Global Surgery • International Teaching Collaboration • Research Education • Education • Quality Improvement • Student

ABSTRACT 43

Technological Determinants of Health: Factors Associated with Equitable Utilization Among Minority Adolescents and Young Adults (Aya) Receiving Sexual Health Services

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Background and Objectives: As facilities have limited face-to-face appointments during the COVID-19 pandemic, and are likely to maintain telehealth visits post-pandemic, youth at risk of sexually transmitted infections (STI) are vulnerable to disruptions in medical care. Our clinic system implemented telehealth in response to the COVID-19 pandemic to continue to provide care to patients. While utilization of telehealth platforms has the potential to address disruptions in care, there are inequities in access to technology for telehealth. The goal of this study is to describe baseline data collected as a part of our project that explores telehealth acceptability and digital inequities (device access, internet access, and digital literacy) affecting utilization of telehealth for sexual health services among Adolescents and Young Adult (AYA) and describes the next steps.

Methods: The setting includes a nine-clinic system that provides free preventive primary care and reproductive health services to >10,000 Medicaid, low-income, and uninsured AYA annually. Majority (97.9%) of patients fall below the 250% Federal Poverty Level threshold and 96% belong to racial and ethnic minority groups. We collected baseline data describing differences among those who received telehealth services and those who did not receive them. Age, sex, race, proportion of patients who were minors, income, proportion of patients who qualified for Medicaid or equivalent funding (indicating a lower per-person family income), and receipt of appropriate STI tests were compared. Similar comparisons were made describing the population of patients seen in 2019 (pre-COVID) and 2020 (during COVID). T-tests and Chi-squared tests were used as appropriate and p values < 0.05 were considered to indicate significance. To further delineate the reasons for differences in utilization of telehealth we are currently prospectively administering a survey to all patients who request an appointment for sexual health-related services at our clinic. Based on the results of the survey, we plan to perform 1:1 semi-structured interviews to probe for contextual information and feedback to help improve outcomes.

Results: There were a total of 8,245 unique clinic patients in 2020 (mean age 20.2 years, SD 2.5). Of those, 19.99% received at least one telehealth visit. There were significant differences between utilization of telehealth services between adults and minors ($p < 0.01$), with 9.37% of minors vs. 21.42% of adults accessing

telehealth services. Additionally, there were statistically significant differences in telehealth utilization among different social and economic statuses with higher utilization in patients that had a higher income, were Black, non-Hispanic, and female (all p-values < 0.01). Among patients who received a telemedicine visit, a higher proportion was screened for STIs including chlamydia, gonorrhea, HIV, and syphilis, as compared to individuals who had not received a telehealth visit (p < 0.01). Comparing patient demographics between 2019 and 2020, there were smaller proportions of minors, and Hispanics who accessed care in 2020 compared to 2019 (p-values < 0.01). The proportion of patients who were Medicaid eligible increased from 2019 and 2020 (42.6% vs. 48.6%, respectively, p < 01). A survey has been generated using psychometrically validated instruments that explore demographic differences, attitudes towards telehealth, intention to utilize telehealth, access to telehealth technology, barriers and facilitators to access, and sexual behaviors as covariates that determine the use of telehealth for care. Administration of the survey has been initiated and study findings are expected by the end of the calendar year 2021.

Conclusion and Global Health Implications: There were demographic differences in clinic patients between 2019 (pre-COVID) and 2020 (during COVID), and between individuals who utilized and did not utilize telehealth services. There were fewer minors accessing care in 2020, providing evidence that the pandemic has hindered minors' access to needed primary preventive and reproductive health care. Likewise, a higher proportion of patients were Medicaid eligible, a likely result of the economic toll from the pandemic. Patients who were minors, Hispanic, and low-income were less likely to utilize telehealth services. As the pandemic continues, it is important for public health policies and organizations to decrease the barriers to reproductive health care services including telehealth services, specifically among patients who are minors, low-income, and Hispanic. Through the BCM's Office of the President Health Disparity Grant, we hope findings from this study will shed light on telehealth acceptability and digital inequities affecting utilization of telehealth for sexual health services among AYA. Findings will lay groundwork for subsequent research focused on action-oriented steps to develop innovative interventions and clinical practice recommendations that will improve health care access, STI-related client outcomes, and health equity among AYA.

Keywords: • Health Equity • Technology • Social Determinants of Health • Adolescent Health • Sexually Transmitted Infection

ABSTRACT 44

Adapting a Social Needs Screening Tool and Developing Standard Algorithms to Address Unmet Needs Early in the Pediatric Diabetes Course

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Background: The high stress and demands of unmet social needs among socioeconomically disadvantaged families of youth with type 1 diabetes (T1D) present serious roadblocks to T1D management. Often these unmet social needs are informally identified in the course of clinical care after children have developed acute or even chronic complications. There is no streamlined process to comprehensively identify, prioritize, and address social needs early in the disease course to proactively prevent rapid worsening of glycemic control among socioeconomically disadvantaged families. Developing screening tools and strategies for addressing social needs is an important step in reducing unmet needs and improving diabetes outcomes.

Methods: We describe methods to develop a screening tool and strategy for addressing unmet social needs in a proof-of-concept study of social care navigation for parents of 15 African-American and Latinx children who are newly diagnosed with T1D and publically or uninsured. A multidisciplinary team spanning endocrinology, social work, and behavioral health adapted the IHELP social needs screening tool for pediatric diabetes care. IHELP assesses 5 household needs and child-specific domains, including food insecurity, housing, child educational needs, health insurance, and safety in the home. The team identified community resources to address social needs and developed algorithms for patient navigation through consultation with an expert in the development, implementation, and evaluation of social needs screening tools in pediatric care settings.

Results: The IHELP screening tool was modified to assess social needs in 7 domains: food insecurity, financial instability, housing, child educational needs, health insurance, transportation to medical appointments, and parking at medical appointments. Both parent-specific (e.g., unemployment) and child-focused (e.g., 504 educational plan) resources were addressed in standard algorithms and a customized database was created for tracking.

Conclusion and Global Health Implications: Using an adapted valid screening tool and standard algorithms to identify and address unmet social needs among socioeconomically vulnerable families could provide a streamlined approach for addressing social needs early in the T1D disease course.

Keywords: • Socioeconomically Disadvantaged • Social Needs • Social Determinants • Pediatric Diabetes • Type 1 Diabetes

ABSTRACT 45

A Longitudinal Antiracist Curriculum for Medical Education

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Background: Health disparities are prevalent in society and persist due to structural racism within medicine and implicit bias of healthcare professionals, emphasizing the need for additional antiracist training interventions.[1] Previous studies have demonstrated efficacy in implementing antiracist training in medicine in the form of single and multiple workshops.[2,3,4] After providers were trained using the RESPECT model, they showed improvement in interviewing skills, and an increased percentage of residents (57% pre, 90% post) endorsed the importance of cross-cultural training on improving healthcare delivery.[4] To provide healthcare professionals with the framework needed for recognizing and responding to structural racism, racial health disparities, and individual biases, this study proposes using a series of videos as a more comprehensive and longitudinal antiracist curriculum.

Methods: Sample video topics include: types of racism, implicit bias, microaggressions, and privilege. Population of interest includes healthcare professionals at different levels of training (i.e. students and faculty) within Baylor College of Medicine. Pre- and post-video assessments will be administered to determine familiarity with antiracism concepts. Differences in mean scores will be tracked to analyze the efficacy of the video curriculum.

Results: It is expected that participants will have lower scores on less familiar topics (i.e. microaggressions, privilege). Objective scores and subjective participant confidence levels for different topics are expected to improve overall between pre-and post-video assessments.

Conclusion and Global Health Implications: Implementing a longitudinal antiracist curriculum that prioritizes cultural competence and humility in medical practice can help providers at all levels of training be more equipped to improve health disparities and community relationships.

Keywords: • Antiracist Training • Longitudinal Curriculum • Structural Racism • Implicit Bias • Medical Education

ABSTRACT 46

Analysis, Implications, and Future Directions in the Treatment of Minority Patients in Healthcare

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Background: Persons of color are disproportionately mistreated within healthcare systems. Their pain is taken less seriously; consequently, death rates are much higher rates than white patients with similar ailments. There is currently a focus in many medical organizations on acknowledging that racism exists without providing methods to change. We aim to dissect and reconstruct the way that modern medicine is confronting racism, and to push these groups and individuals into actively engaging against racism. Additionally, we want to streamline and objectify the process of instituting anti-racism measures for equity of treatment by focusing on values and ethics of providers. We aim to improve the ethical treatment of patients by training physicians into becoming more ethically and racially equitable patient advocates by creating and implementing a straightforward intervention program.

Methods: One checklist of initiatives will be used to identify, assess, acknowledge and work towards eliminating implicit bias in treatment prescription. A second published checklist will focus on removing subjective decision-making in treating patients. These checklists incorporate Interprofessional Core Competencies 3 and 4, which focus on a team approach to promoting and delivering patient-centered care policies that are equitable. Pre and post-checklist implementation surveys will garner the quality of patient experience.

Results: Survey results will specify the use of a checklist and improved pain management in persons of color.

Conclusion: We aim to showcase innovative initiatives to educate healthcare professionals via an easily implemented plan for hospitals and clinics that will reduce the negative impacts of implicit and explicit racism within the medical community.

Keywords: • Initiatives in Structural Racism • Healthcare Inequities • Patients of Color • Patient Advocacy • Ethical Treatments • Equitable Healthcare

ABSTRACT 47

Gauging Perception of Diversity and Inclusion Among Healthcare Trainees

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Background: Diversity and inclusion in healthcare education are essential to cultivating healthcare workers better suited to meet an ever more diverse population's needs. Recognizing the importance, many academic organizations have prioritized diversity and inclusion through recruitment efforts to increase underrepresented minority (URM) students. They have also adopted institutional practices that are more inclusive to individuals from diverse backgrounds such as LGBTQ+, students with disabilities, and students from lower socioeconomic households. Our study aims to assess how diversity affects the learning atmosphere, educational experiences, and potential practice plans of University of Texas Medical Branch (UTMB) students.

Methods: Students currently enrolled in UTMB's School of Medicine (SOM), School of Nursing (SON), or School of Health Professionals (SHP) received a 43-question anonymous voluntary survey composed of questions that examined students' impression about the degree of diversity, their stances about diversity, their attitudes about the role of diversity in their program's curriculum, and their predictions of the diversity in their intended patient populations and specialties based on race/ethnicity, gender identification, and professional school. We analyzed our data with a Chi-Square and an ANOVA test.

Results: We received survey responses from 130 of the 2,644 students meeting inclusion criteria—response rates varied by program up to 10%. There were no statistically significant differences between respondents above ($p > 0.05$) compared between fields of study. However, we did see statistical significance when respondents were compared by gender identity under instruments 1 and 2, both with p-values of 0.001. Statistical differences were also seen when respondents were compared by race under instrument 2 pertaining to race ($p= 0.003$).

Conclusion and Global Health Implications: Our study demonstrates that students' perceptions of diversity varied based on gender identity and race characteristics. Males were more likely to perceive their class as diverse compared to female and non-binary individuals and were less likely to report encountering a lack of sensitivity from faculty or students regarding gender identity. Non-binary and African-American individuals were the most likely to report encountering a lack of sensitivity regarding differences in gender identity and race, respectively. More research must be pursued to evaluate further how well institutions are incorporating diversity into the curriculum and if they are truly cultivating a more inclusive culture.

Keywords: • Diversity and Inclusion • Medical Education • Nursing Education • Healthcare Trainees

ABSTRACT 48

Utilization of Computed Tomography Pulmonary Angiography Imaging in Patients for Suspected Pulmonary Embolism Based on the Patient's Race and Sex

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Background: Studies are now reporting inequity in medical care based on the patient's race or ethnicity and biological sex. Most of the studies on disparities for pulmonary embolisms (PE) have focused on epidemiology, morbidity and mortality.[1-4] An analysis of pulmonary embolism mortality in the United States from 1979 to 1998 using multiple cause mortality data found the age-adjusted mortality rates for blacks were consistently 50% higher than those for whites.[5] Mortality rates among men were 20% to 30% higher than women for all racial strata. Given these known differences, equitable race and sex-based management of PEs is important, especially with regards to utilization of computed tomography pulmonary angiography (CTPA) imaging for patients with suspected PE.

Methods: This is a retrospective cohort study through chart review. Our dataset is from the Emergency Departments (ED) of four tertiary teaching hospitals: Ben Taub General Hospital, Rhode Island Hospital, UC Davis Medical Center, and Oregon Health Science University Hospital. Data included will be prior to the coronavirus pandemic. Inclusion criteria will be: 1) age ≥18, 2) CTPA result for suspected pulmonary embolism, 3) d-dimer result for suspected pulmonary embolism, 4) patient's race is documented, 5) patient's sex is documented. Our sample size is 13,151 for a power of at least 80%. Data will be analyzed with descriptive statistics. P-values < 0.05 will be considered statistically significant.

Results: Pending data analysis.

Conclusions and Global Health Implications: This study addresses a critical data gap for formulating health quality improvement initiatives that are equitable for all. It will also provide valuable data for the wider medical and scientific communities to pursue a multitude of studies that will ensure patients are receiving appropriate and equitable CTPA for suspected PE.

Keywords: • Sex and Gender • Pulmonary Embolism • Racial Inequity • Gender Inequity

ABSTRACT 49

It Takes a Village: A Project to Reach Mothers in Need

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Background: Postpartum mood and anxiety disorders (PMAD) are a well-documented complication of the perinatal period. Minority women are especially at high risk as they are more likely to have preterm babies requiring NICU care[1] (NICU parents have increased rates of PMAD) and die of pregnancy-related complications,[2] of which mental health is a major contributor. Race is also an independent variable in predicting postpartum depressive symptoms.[3]

As minority groups are more likely to rely on their phones as their primary means of internet access,[4] our project develops a smartphone application for self-directed care and referral for mental health services.

Methods: The smartphone application will have self-guided validated screens for postpartum depression and anxiety. It will also include information on support services and a connection to the appointment line for mental health services. The application will be available in English and Spanish and will be offered to mothers of inborn patients in select NICUs at Ben Taub and Texas Children's Hospital. The app will launch in June 2021.

Results: Data on several measurable outcomes will be collected, including the number of downloads, and demographics of referrals from the NICU to mental health services before and after app implementation.

Conclusions, including Health Equity Implications: Minority NICU mothers are at high risk for having postpartum mental health needs and have barriers preventing them from receiving care. This app is designed to be easily accessible and to more equitably screen the maternal NICU population for mental health issues and provide tools for self-guided referral.

Keywords: • Technology • Health Equity • Mental Health • Postpartum; NICU

ABSTRACT 50

Potential Racial Bias During Pediatric Emergencies: A Simulation Study

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Background: Healthcare disparities exist in the pediatric population and for pediatric trauma patients include longer emergency department (ED) wait times, prolonged ED length of stay and decreased prescriptions for analgesia at discharge.[1,2] Previous simulation studies have used computer-simulated[3] or standardized patient encounters[4] along with the implicit association test (IAT), a validated tool to measure Black-White biases[5], to better understand implicit bias in healthcare. To our knowledge, no studies have used high or low fidelity simulation with pediatric manikins to better delineate this relationship.

Methods: Resident physicians participate in two simulation scenarios: a low-fidelity femur fracture patient and a high-fidelity cardiac arrest secondary to septic shock scenario. One scenario is performed with a light-skinned manikin and the other with a dark-skinned manikin. Each resident participates in a simulation with each skin tone but is randomized to which scenario has the light or dark-skinned manikin. The sessions are recorded. Timed checklists are used to measure time to treatment interventions. Participants also state their differential diagnoses. After completion of the scenarios, they complete the IAT.

Results: This study is ongoing and preliminary results are pending.

Conclusion and Global Health Implications: Our goal is to determine if there are differences in the care of pediatric clinical scenarios in simulation-based on skin tone. If our study demonstrates that differences do exist, we plan to develop future studies to further investigate these disparities as well as to educate healthcare providers on how to mitigate implicit bias when providing care.

Keywords: • Implicit Bias • Simulation Education • Health Disparities • Pediatrics • Emergency Medicine

ABSTRACT 51

Race Concordance between Patients and their Teams: Overcoming Chronic Health Outcomes In Primary Care

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Background: Conflicting evidence exists regarding whether higher quality healthcare outcomes are delivered by diverse teams. Provider-patient race concordance is associated with reduced health disparities through improvements in patient-provider relationships and communication.

Methods: Database review of patients (i.e., demographics and clinical outcomes) and primary care teams (i.e., demographics and professional roles) will include 7,000 Patient Aligned Care Teams (PACTs) in primary care at 152 VHA Medical Centers and their respective patient panels (an estimated 8,400,000 patients) between January 2019 and August 2020. The Veterans Health Administration (VHA) Reengineered Primary Care Management Module (RPCMM) will be used to explore demographic and professional information.

Analyses will explore demographic variables (i.e., race/ethnicity, gender) regarding patients and their respective primary care physicians and primary care teams. Variables will be created to examine patient-physician race concordance and the race concordance proportion of patients with their PACTs.

Three alternative linear regressions will compare incremental variance explained by each model. All models will test PACT-level performance on clinical outcomes as their outcome measures; each outcome will be tested separately.

Results: Data analyses are ongoing. Analyses may suggest that ingroup-outgroup relationships (i.e., race concordance between the patient and either the provider or key team members) are more important than having a racially diverse team. On the other hand, data may also suggest the need for more deliberate efforts in diverse primary care team staffing.

Conclusion and Global Health Implications: Pending results, healthcare organizations should prioritize diversity on their teams to benefit all patients. This study may inform specific national policy for staffing primary care teams.

Keywords: • Primary Care Teams • Industrial/Organizational Psychology • Concordance • Team Diversity • Healthcare Quality

ABSTRACT 52

Transforming the Future of Social Determinants of Health Screening: A Medicaid Pilot Program to Address Food Insecurity

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Background: Medicaid-specific initiatives are focusing on potential health and cost benefits of addressing social needs. We aim to evaluate whether a new Medicaid Managed Care Organization (MMCO) initiative to increase food insecurity (FI) screening and referrals result in increased FI resource enrollment and improved food security.

Methods: This is a cross-sectional study of data from a Texas MMCO serving lower-income populations, with approximately 65% from underrepresented racial/ethnic backgrounds. Currently, MMCO members receive FI screening during their comprehensive annual assessment. Targeted FI screening with MMCO community health workers (CHW) trained in social needs screening will begin June 2021. CHWs will call caregivers of school-aged health plan members who speak English/Spanish. Screening will be conducted using the validated hunger vital sign (HVS) and interventions will be standard of care [phone number to Houston Food Bank (HFB)] or active handoff to HFB for assistance applying to public benefits and produce prescriptions. CHWs will perform follow-up calls 12-weeks after FI screening. Summary data describes baseline FI screening in September 2020. Future analysis will include summary of feasibility data and comparisons of pre-and post-intervention FI scores.

Results: Recently, of 173,484 MMCO members who qualified for FI screening, 31,118 (18%) had received HVS in the previous 18-months. 1,161 screened positive (3.7%), and 928 (80%) of positive screens received HFB referrals. Data based on the proposed intervention are anticipated fall 2021.

Conclusion and Global Health Implications: A targeted MMCO screening initiative with trained CHWs and active referrals to HFB may result in increased identification of FI, improvement resource enrollment, and improved food security.

Keywords: • Medicaid Managed Care Organization • Food Insecurity • Social Determinants of Health • Community Health Workers • Food Bank