views) to never want to be vaccinated for COVID-19. Those who expressed distrust in healthcare organizations were less likely to want to be vaccinated soon. Conversely those who were more trusting said they were more likely to want to be vaccinated soon. Respondents dominant concerns about the COVID-19 vaccine were that it was new and that the process for its development was rushed. Respondents who believed that COVID-19 was a hoax were unlikely to ever want to be vaccinated, while those who distrusted the process in some way (new vaccine or rushed vaccine) were more likely to want to wait to be vaccinated. DISCUSSION/SIGNIFICANCE: These findings confirm the impact of political orientation on COVID-19 vaccination intention and suggest that distrust in healthcare organizations may prevent people from being vaccinated. These data provide evidence that people delaying vaccination hold different beliefs than those who will never vaccinate.

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Factors affecting rural residents willingness to share personal data for COVID-19 contact tracing

Jennifer B McCormick[1], Margaret Hopkins[1], Erik B Lehman[1] and Michael J Green[1]
[1]Penn State Clinical and Translational Science Institute

OBJECTIVES/GOALS: The goal of this study was to examine the attitudes of central Pennsylvania rural residents toward data sharing in the setting of the COVID-19 pandemic. We determined their willingness to provide cell phone data and personal information to public health staff investigating COVID-19 cases, as well as their concerns about sharing this information. METHODS/STUDY POPULATION: We used the electronic medical records of an academic healthcare institution in central Pennsylvania to obtain names and addresses of patients who had visited an outpatient clinic or been an inpatient within the prior three years, were 18 years or older, and who resided in a community defined as rural by the Commonwealth of Pennsylvania. The survey included four statements about contact tracing, three statements about intent to receive the COVID-19 vaccine, and validated scales for general trust and for distrust in healthcare organizations. All study variables were summarized to determine their distributions, and bivariate binomial logistic regression was conducted. A multivariable model including all of the independent variables was then fit for each outcome variable. RESULTS/ANTICIPATED RESULTS: The response rate was 19.5%. 95 % of respondents were white, 56% were female, and nearly two-thirds were older than 60 years. Binomial logistic regression showed that both distrust in healthcare organizations and political values influenced respondents willingness to share information with contact tracers as well as their concerns about sharing. In multivariate analysis, political values were a consistent predicator of willingness to share and concerns about sharing. Respondents who indicated that they wanted to get vaccinated as soon as possible were significantly more likely than those who did not want to be vaccinated to be willing to share their cell phone location data and personal data. Conversely, they were less likely to be concerned with these data being shared without their permission. DISCUSSION/SIGNIFICANCE: Understanding rural residents concerns about sharing personal information is critical if we are to develop successful strategies for lessening the impact of COVID-19 and managing future pandemics. This study is a first step in eliciting such concerns in the context of COVID-19and has implications for directing a successful pandemic response.

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Developing Strategies to Address Health Disparities For First Generation Regenerative Medicine Treatments

Mohamed Addani[1] and Zubin Master[1]
[1]Mayo Clinic Graduate School of Biomedical Sciences

OBJECTIVES/GOALS: The objective of this research is to begin documenting barriers to regenerative care to proactively address issues of accessibility and determine and implement interventions in anticipation of equitable care. We will explore the accessibility of Platelet Rich Plasma (PRP) for the treatment of knee osteoarthritis (Knee OA) METHODS/STUDY POPULATION: This research has two components. First, retrospective chart analysis using electronic databases to gather factors such as sex, race, ethnicity, disease severity, price, insurance, and treatments. Second. Prospective survey to gather the information (income, employment, education level) that are not found in the chart. Patients with knee OA conditions who received standard care will be compared to knee OA patients who received the novel PRP treatment. Statistical prediction modeling will be employed to determine the probability of receiving novel regenerative PRP treatment based on gathered explanatory variables. Our sample size is about 1000 patients per group (PRP group vs standard care group). Patients are from the three Mayo sites (Rochester, Arizona, Florida) as well as Detroit Medical Center. RESULTS/ANTICIPATED RESULTS: Our preliminary analysis shows that only a homogenous of patients (white) are receiving the novel PRP regenerative care to treat knee OA even though African Americans suffer from knee OA at a much greater rate. However, we still don't know what is the main driver of this homogeneity. We anticipate that insurance coverage and out-of-pocket cost of care for PRP to be a huge barrier. Also, we are anticipating the lack of knowledge about PRP and its level 1 meta-analysis efficacy, as well as physician bias for not recommending PRP to certain underrepresented populations could play a role as well. We plan to order the level of influence of each barrier for each sex, race, and ethnicity, so intervention can be personalized and targeted for each population of interest. DISCUSSION/SIGNIFICANCE: Almost half of Americans live with at least one chronic medical condition and regenerative medicine holds tremendous promise to address many disease categories. To design any intervention to increase access requires knowledge about barriers in regenerative care, which is why this research is very critical now before the wide implementation of care.

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The Unfinished Journey towards Transplant Equity: an analysis of racial/ethnic disparities for children in the post-KAS era

Olga Charnaya[1], Laura Zeiser[1], Dolev Yisar Ben-Gurion[2], Aviva Goldber[3], Dorry L. Segev[1], Allan Massie[1], Jacqueline Garonzik-Wang[1] and Priya Verghese[4]
[1]Johns Hopkins University, [2]University of the Negev, [3]University of Manitoba and [4]Lurie Children's Hospital Northwestern University

OBJECTIVES/GOALS: Disparities in pediatric kidney transplantation (KT) result in reduced access and worse outcomes for minority

children. We aimed to assess the impact of recent systemic changes on these disparities. METHODS/STUDY POPULATION: Retrospective cohort study of pediatric patients utilizing data from the United States Renal Data System (USRDS) and Scientific Registry of Transplant Recipients (SRTR). We compared access to transplantation, time to deceased donor kidney transplant (DDKT), and allograft failure (ACGF) using Cox proportional hazards in the 4 years preceding KAS to the 4 years post-KAS implementation. RESULTS/ANTICIPATED RESULTS: Compared to the pre-KAS era, patients post-KAS were more likely to be pre-emptively listed (26.8% vs 38.1%, p<0.001) and pre-emptively transplanted (23.8% vs 28.0%, p<0.001), however these benefits were not uniform across racial groups. Only 12.7% and 15.7% of Black and Hispanic children received a pre-emptive transplant compared to 29.6%, 49.8% and 54.4% of White, Asian and Other race children respectively. Compared to White children, Black and Hispanic children had a lower likelihood of transplant listing within 2 years of first dialysis service aHR 0.67 (0.59-0.76) and 0.82 (0.73-0.92), in the post-KAS era. Time to DDKT after listing was comparable across all racial groups in both eras. Black children have disproportionally worse 5-yr ACGF, aHR 1.50 (1.08-2.09), p=0.02. DISCUSSION/SIGNIFICANCE: After KAS implementation there remains equity in time to DDKT, however disparities persist in transplant listing and ACGF among Black children. Further studies are needed to identify granular SES factors impacting delayed referral and systemic barriers to transplant, as well as risk factors for poor allograft outcomes among minority children.

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COVID-19 infection risk in patients with non-syndromic orofacial clefts during pandemic in Puerto Rico[†]

Yinayra Victoria[1], Natalio Debs[2], Augusto Elias[3] and Carmen J Buxo[4]
[1]University of Puerto Rico-Medical Science Campus-, [2]University of Puerto Rico School of Dental Medicine (UPR SDM), [3]Professor and Assistant Dean of Research (UPR SDM) and [4]Associate professor & Director of the Dental Genomic and Craniofacial Core (UPR SDM)

OBJECTIVES/GOALS: Patients with nsCL/P are prone to infections due to their open like wound cleft and immune system susceptibility. COVID-19 affected nsCL/P patients access to care and treatment delays. This study will determine COVID-19 infection risk between children with nsCL/P compared to those unaffected. METHODS/STUDY POPULATION: Retrospective cohort of children 5 years old and under with nsCL/P (exposed group) and children without nsCL/P (unaffected group); matched by age and gender. Participants will be selected from ongoing case-control study (n=500), School of Dental Medicine, and Pediatric University Hospital. Power analysis will calculate minimum sample size (power=0.80 alpha=0.05). Exclusion criteria: syndromic clefts, patients without diagnosis information and with history of co-morbidity. Other bacterial and viral infections present at the time of COVID-19 diagnosis, sex, age, geographic location, COVID-19 vaccination status and others will be considered as possible cofounders. Descriptive statistics, Chi-square, Odds Ratios at 95% confidence intervals and multiple logistic regression will be estimated. RESULTS/ANTICIPATED RESULTS: We hypothesize that we will identify an increased risk of COVID-19 infection in children with nsCL/P than in those unaffected or children without nsCL/P. Children with nsCL/P will also have an increased risk of symptoms and complications of COVID-19 infection than those unaffected. DISCUSSION/SIGNIFICANCE: Knowing the increased risk of COVID-19 infection in children with nsCL/P will aid to prioritize treatment. If a higher risk of COVID-19 infection is found, it will generate a need to modify elective surgery status to semi-elective; minimizing delayed treatments, unnecessary hospitalizations, complications and increased cost of treatment.

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Contextual Pathways Linking Racial Discrimination to Rural Black American Mens COVID Vaccine Hesitancy[†]

Michael Curtis[1], Steven M Kogan[1] and Christopher C Whalen[1]
[1]University of Georgia

OBJECTIVES/GOALS: The present study investigated contextual factors linking rural Black American mens experiences of racial discrimination to their COVID vaccine hesitancy. Specifically, we investigated two potential mediators of the link between racial discrimination and COVID vaccine hesitancy: (1) medical mistrust, and (2) COVID conspiratorial beliefs. METHODS/STUDY POPULATION: Hypotheses were tested using structural equation modeling with 7 waves of data from 504 Black American men participating in a longitudinal study of risk behavior and substance use during young adulthood. At baseline, mens mean age was ~20. Data were collected before and during the COVID pandemic. The COVID pandemic began after Wave 4 data had been collected. A series of 3 online surveys, at 3-month intervals, were conducted to examine acute COVID-related stressors and impacts. RESULTS/ANTICIPATED RESULTS: The dual mediation model fit the data as follows: $\chi^2(7) = 19.00$, $p < .008$; $\chi^2/df = 2.71$; RMSEA = 0.06; CFI = 0.95; SRMR= 0.04. Results indicated that racial discrimination was directly associated with increases in COVID conspiratorial beliefs (B = .14, p<.05) and medical mistrust (B = .22, p<.001). COVID conspiratorial beliefs was directly associated with increases in COVID vaccine hesitancy (B = .11, p<.05). Indirect effects were detected whereby racial discrimination was associated with increases COVID vaccine hesitancy indirectly via increases in COVID conspiratorial beliefs (B = 0.016; 95% CI [0.001, 0.048]). DISCUSSION/SIGNIFICANCE: Investigating race-related factors in the context of vaccine hesitancy is a novel area of inquiry that could facilitate the development of targeted interventions for Black Americans to increase their vaccine uptake. Future research is needed to more thoroughly examine the relationship between racial discrimination and conspiratorial beliefs.

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Promoting Diversity and Inclusion through the Black Voices in Research Storytelling Curriculum: Instructional Design and Pilot Implementation

Yulia A. Levites Strekalova[1], H. Robert Kolb[2], Patricia Xirau-Probert[3] and Tiffany Pineda[4]
[1]University of Florida

OBJECTIVES/GOALS: Last year, we reported on storytelling events highlighting the experiences of Black biomedical professionals. The goal of this continuation study was to put Black Voices into action through a companion curriculum, instructional materials, and facilitated meaningful discussions around racial justice. METHODS/STUDY POPULATION: We developed instructional materials and pilot-implemented the curriculum in a 250-student Healthcare Leadership class. Prior to viewing the video, participants were asked to provide a definition of diversity, inclusion, and equity. Afterwards, the students reflected and suggested changes to the