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### Beyond Independence: The Empowering Potential of an Assistive Technology Web App to Enrich the Lives of Older Latinos with Functional Disabilities

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**OBJECTIVES/GOALS:** The use of assistive technology (AT) devices is known to improve older adults' independence in daily activities. However, little is known about the impact of using an AT web app in older Latinos' life. This study aims to evaluate the value and usefulness of the My Assistive Technology Guide web app among older Latinos with physical function disabilities. **METHODS/STUDY POPULATION:** We employed a convergent parallel mixed-method design with 12 community-living older Latinos from Puerto Rico. Researchers provided training in the use of My Assistive Technology Guide, a Spanish evidence-based web app with detailed information on 97 AT devices and videos of older people using them. Participants were encouraged to use it for 30 days. Afterward, we collected quantitative data using the subjective quality domain of the User Mobile Application Rating Scale (uMARS), followed by qualitative data through individual interviews. Quantitative data were analyzed with descriptive statistics and qualitative data with thematic content analysis. **RESULTS/ANTICIPATED RESULTS:** My Assistive Technology Guide web app received high ratings in the uMARS subjective quality domain (mean 4.5 [SD 0.5] out of 5), indicating that participants highly valued the usefulness of the web app. Qualitative data fell into four main categories: functional health, meaningful participation, autonomy, and personal growth. **DISCUSSION/SIGNIFICANCE:** The findings suggest that the AT knowledge provided by the My Assistive Technology Guide web app has the potential to enhance the quality of life of older Latinos in the face of the challenges posed by physical function disabilities as people age.

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### Increasing COVID-19 vaccine uptake through community engagement: collaborative efforts among Cooperative Extension and Clinical and Translational Science Institutes

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**OBJECTIVES/GOALS:** The CDC-funded Program to Alleviate National Disparities in Ethnic and Minority Immunizations in the Community intersects two national networks that transform building trust in communities: Cooperative Extension Systems and Clinical and Translational Science Awardees, with the goal of

reducing vaccine hesitancy and increasing vaccine uptake. **METHODS/STUDY POPULATION:** PANDEMIC included North Central Florida; Greater Sacramento, California; Bronx, New York; St. Louis and the Ozarks, Missouri; rural Kentucky; and Minnesota. Our 10 Promising Practices (PPs) focus on the equitable distribution of COVID-19 vaccines and health information, with two detailing collaborative efforts to better achieve health equity: PP3) Bringing Services and Vaccines to People Where They Are & PP5) Creating Coalitions with Trusted Neighborhood Partners. CHWs and Extension Educators, trusted community members, work together to deliver culturally/linguistically diverse health messages in plain language in areas of high vaccine hesitancy and bring vaccines to people where they are. All outreach activities are tracked and categorized by PP affiliation. **RESULTS/ANTICIPATED RESULTS:** From November 2021 – August 2023, PANDEMIC has administered nearly 11,000 COVID-19 vaccines at over 2,500 outreach events. At events, Community Health Workers (CHWs) listen to community members to assess vaccine perceptions and health needs/concerns. We adapt messaging and outreach initiatives to promote vaccination through data analyses that help us understand perceptions. Responses are calculated for the populations of focus (PoF)–Latino/Hispanic, African American/Black, American Indian/Alaskan Native, Asian, Native Hawaiian/Other Pacific Islander) compared to others (Non-Latino/Hispanic White or unspecified race). Over 16,000 surveys were collected from November 2021 – August 2023 with 60% coming from the PoF. Key differences in perceptions will be shown along with other cross-site metrics. **DISCUSSION/SIGNIFICANCE:** PANDEMIC offers an innovative model for collaboration among CTSA and Cooperative Extension Systems to better understand community perceptions and support vaccination efforts and overall health promotion in communities of greatest need, with a focus on racial and ethnic minority communities and underinsured/uninsured populations.

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### Race-related stress is associated with low weight and gestational age at birth in a prospective cohort study of pregnant Black persons\*<sup>†</sup>

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**OBJECTIVES/GOALS:** Low birth weight and preterm birth are significant contributors to infant mortality in the United States that disproportionately impact Black pregnant persons and their offspring. Although these outcomes are linked to chronic stress, the contribution of race-related stress remains largely understudied. **METHODS/STUDY POPULATION:** We investigated the effect of race-related stress on weight and gestational age at birth in a prospective cohort of 115 pregnant Black persons recruited at Grady Memorial Hospital in Atlanta, Georgia. The Index of Race-Related Stress Brief (IRRS-Brief), Perceived Stress Scale (PSS), and Stressful Events Questionnaire (SEQ) were collected at study enrollment during pregnancy. Neonatal birth weights and gestational age were collected via standardized medical record abstraction. We conducted linear regressions to determine whether greater race-related stress was associated with lower weight and gestational age at birth, while

controlling for sources of prenatal stress. **RESULTS/ANTICIPATED RESULTS:** Global racism (total IRRS score) was significantly associated with birth weight when controlling for prenatal perceived stress and stressful life events within the last six months since study enrollment ( $\beta = -16.7$ ,  $p = .035$ ). Neonatal gestational age was associated with both global racism ( $\beta = -0.03$ ,  $p = .028$ ) and individual racism (IRRS'Individual' subscale score) ( $\beta = -0.09$ ,  $p = .032$ ) when controlling for prenatal perceived stress and stressful life events within the last six months since study enrollment. These results suggest that greater race-related stress contributes to lower weight and gestational age at birth in pregnant Black persons. **DISCUSSION/SIGNIFICANCE:** Future studies are necessary to determine the mechanisms by which race-related stress contributes to these adverse birth outcomes and to inform the development risk-assessment tools and interventions to mitigate the threat of race-related stress on adverse birth outcomes in high-risk populations.

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### **COVID-19 Hospitalization and Death by Concentrated Racial/Ethnic and Economic Segregation: Los Angeles County, January 2020-June 2023\***<sup>†</sup>

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**OBJECTIVES/GOALS:** This study aims to assess associations over time between several area-based indices of concentration at the extremes and COVID-19 hospitalization and death in Los Angeles County, from January 2020 to June 2023. These measures reflect concentrations of racial/ethnic and economic segregation at the census tract level. **METHODS/STUDY POPULATION:** Indices of concentration at the extremes (ICEs) for economic segregation, racial/ethnic segregation, and a combination of the two were constructed for each Los Angeles County (LAC) census tract, using 2015-2019 ACS data. The index ranges from -1 to 1 and is the number of advantaged households (HH) minus the number of disadvantaged HH over the total number of HH measured. Economic segregation is HH income over \$100,000 vs. below \$25,000 per year and racial/ethnic segregation defined as White and Non-Hispanic vs. non-White or Hispanic HH. The distribution of index scores was divided into quintiles (Q1-Q5) for all LAC census tracts. Age-adjusted hospitalization and death rates were derived at the census tract level by quarter (QTR) based on Los Angeles County Department of Public Health surveillance data. **RESULTS/ANTICIPATED RESULTS:** Age-adjusted hospitalization and death rates were consistently higher across all quarters in Q1 (most deprived) vs. Q5 (most privileged) for all ICE measures. For ICE of economic segregation, the age-adjusted hospitalization and death rate ratios between Q1 and Q5 were 2.12 (range: 1.32 - 4.15; peak 2020 QTR2) and 2.02 (range: 1.46 - 3.21; peak 2021 QTR1), respectively. For ICE of racial segregation, the age-adjusted hospitalization and death rate ratio between Q1 and Q5 was 2.03 (range: 1.08 - 3.95; peak 2020 QTR3) and 1.77 (range: 1.03 - 2.80; peak 2021 QTR1). The ICE of economic/racial segregation combined was the highest, with averages of the age-adjusted hospitalization and death rate ratios between Q1 and Q5 being 2.26 (1.16 - 4.43; peak 2020 QTR2) and 1.99 (range: 1.22 - 3.32; peak 2021 QTR1). **DISCUSSION/SIGNIFICANCE:** This study assesses the impact of geographic segregation based on indices that quantify the concentration of both deprivation, privilege, and racial/ethnic group, demonstrating that segregation and economic deprivation are consistently associated with higher rates of age-adjusted hospitalization and death from COVID-19 in LAC.

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### **Evaluating Disparities in Management of Solid Organ Injury in Children Treated at Pediatric vs. Adult Trauma Centers\***<sup>†</sup>

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**OBJECTIVES/GOALS:** Non-operative management is preferred for pediatric solid organ injury (SOI). Despite this children treated at adult trauma centers (ATC) are more likely to be treated surgically and have worse outcomes than those treated at pediatric trauma centers (PTC). We hypothesize there are disparities by sex and race in management of pediatric SOI at ATC vs PTC. **METHODS/STUDY POPULATION:** Retrospective review of the National Trauma Data Bank (NTDB) from 2010-2018 was conducted. Inclusion criteria were age  $\leq 18$  and injury to spleen, liver or kidney. Outcomes at American College of Surgeons accredited ATC, PTC, and combined ATC/PTC trauma centers were evaluated. The primary outcome was operative management. Secondary outcomes include length of stay, and in-hospital complications. Multivariate logistical regression adjusting for race, sex, and insurance type will be performed. **RESULTS/ANTICIPATED RESULTS:** 40,111 children were treated for SOI from 2010-2018. 39.3% were treated at an ATC and 26.4% at a PTC. Of children treated at an ATC, 62% were White, 17% were Black, and 1% were Asian. Children treated at the PTC were 60% White, 20% Black, and 0.9% Asian. Primary insurance type was Medicaid for 33% of patients at an ATC and 39% at PTC. Median length of stay at ATC and PTC was 4 days (2-7) and 3 days (2-6) respectively. 3.85% of patients at ATC underwent splenectomy compared to 0.8% at PTC. It is anticipated that further analysis will demonstrate that ICU admission, transfusion, embolectomy, and other operative interventions will be more prevalent at ATC than PTC. Moreover, we anticipate that multivariate logistical regression will show the odds of receiving operative management at each center differ by race, sex and insurance type. **DISCUSSION/SIGNIFICANCE:** Initial analysis of the NTDB from 2010-2018 shows that children treated for SOI at ATC receive operative interventions more often than those treated at PTC. Elucidating disparities in SOI care is an important step towards minimizing the impact of these disparities and better allocating resources such that they may be eliminated.

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### **Community & Recruitment Programs at OHSU: Leveraging a team science approach to ensure representative study populations through community engagement and recruitment**

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**OBJECTIVES/GOALS:** Investigators are looking to integrate DE&I into trials, increasing study population diversity. In response, the Community and Recruitment programs of the Oregon Clinical and Translational Research Institute (OCTRI), built a collaborative, community-focused system for investigators interested in community engagement and recruitment. **METHODS/STUDY POPULATION:** Historically, the OCTRI Community and Recruitment programs operated independently. To build a community-focused support system for investigators, we began with the programs learning about each other's goals, values, and operations over a six-month period. Over the next two years, we then