

among the Hispanic/Latinx groups reluctance to adopt self-sampling was notable (56.7% in clinic and 62.7% at home). Qualitative analysis revealed concerns about test accuracy. Willingness to use a hypothetical HPV rapid had higher acceptance (69.7%), with 52.2% in the Hispanic/Latinx group. Qualitative findings highlight benefits like increased screening access, comfort, and convenience offered by an HPV rapid test. DISCUSSION/SIGNIFICANCE: Hispanic/Latinx women in the sample were less willing to adopt cervical cancer screening methods such as self-sampling and rapid testing compared to non-Hispanic whites. Despite being considered beneficial for testing among vulnerable populations, our study found limited acceptance from these populations for various reasons.

207

### **Building a community-academic partnership to facilitate translational research and identify and reduce barriers to mental healthcare services and resources in the Rio Grande Valley of South Texas**

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OBJECTIVES/GOALS: Clinical and epidemiological studies focusing on Hispanics/Latinos are often designed by academic researchers with little input from mental health professionals in underserved communities. Our objective is to establish an academic-community partnership in South Texas to help improve mental health outcomes of Hispanics. METHODS/STUDY POPULATION: Hispanics in the Rio Grande Valley (RGV, South Texas) are burdened with high rates of diabetes and obesity, and interventions have been identified for these conditions, but there is less information about strategies that may help improve their mental health status and address needs. We have explored mental health and psychological factors in Hispanics/Latinos in Latin America (Gil et al., 2021) and consider community participation in the research process to be an understudied topic. Thus, in the present study, we recruited mental health professionals in the RGV to establish an academic-community partnership as a strategy to facilitate translational research that focuses on RGV Hispanics. Partners worked as a team to generate information, identify problems and solutions, and design future projects. RESULTS/ANTICIPATED RESULTS: Our academic team (at the University of Texas Rio Grande Valley) successfully established a partnership with the Cameron County Mental Task Force (CCMHTF), a non-profit organization in South Texas that seeks to “meet the mental and behavioral health needs of the people” in South Texas. The CCMHTF comprises 12 board members that are representative of RGV mental health providers: counselors, social workers, academic clinicians, hospital and county employees, and mental and behavioral health facility providers/clinicians. Our partnership generated qualitative descriptions of the mental health needs of RGV Hispanics/Latinos and barriers to access and utilization of mental health services in South Texas. In the future (phase 2 of the study), we plan to report results of focus groups and mental health assessments. DISCUSSION/SIGNIFICANCE: Hispanics/Latinos are underrepresented in clinical/translational research, and this lack of representation is particularly true for Hispanics/Latinos living along the U.S.-Mexico border of the RGV, South Texas. Our academic-community partnership may serve as a model

to facilitate translational research in underserved Hispanic communities.

211

### **A Machine Learning Approach to Reduce Disparities in Compliance with Public Health Interventions**

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OBJECTIVES/GOALS: To establish the root causes of vaccine hesitancy in populations who have less equitable access to health and healthcare services, and experience healthcare inequities, related to the environmental and social determinants of health, through community engagement and conversations, collaboration, circulation, and communication. METHODS/STUDY POPULATION: Existing data from a cross-sectional survey, vaccine hesitancy (VH) parent study, entitled 'Western New York (WNY) COVID-19 Collaborative to Promote Vaccine Acceptance,' conducted July to November 2022, after IRB approval, will be qualitatively analyzed. In the parent study, surveys were administered in WNY community congregations and community centers to individuals that historically have less equitable access to healthcare resources and may encounter health and healthcare disparities. Minorities, in urban and rural areas, age eighteen and older were identified through the NYS Department of Health's Immunization Information System for daily vaccination rates. A qualitative analysis, promoting fact base HL, and building an inferential statical machine learning tool are the next steps. RESULTS/ANTICIPATED RESULTS: We anticipate the results to show an interplay of multiple factors, including personal, cultural, historical, social, and political, and varies depending on circumstances of time, place, and the type of vaccine being offered. Additionally, a lack of awareness or understanding of vulnerabilities and seriousness of vaccine-preventable diseases, lack of trust in health care providers, social norms, distrust of the healthcare system, biomedical research, and government policy, limited knowledge and understanding of vaccine safety and efficacy, and fear/uncomfortable with needles, as well as the less addressed environmental and social determinants of health associated with racial/ethnic minorities in communities with limited resources may also contribute to VH and less favorable health outcomes. DISCUSSION/SIGNIFICANCE: Identifying people who historically have less equitable access to healthcare resources and may be more likely to resist healthcare services, due to distrust in the system is important. Creating and evaluating an innovative tool to predict refusal of public health interventions is essential to avoid spreading preventable diseases.

212

### **Community engaged telehealth care access for Latino farmworkers**

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OBJECTIVES/GOALS: Historically, Latino farmworkers have lacked access to healthcare. 1 Telehealth promises to bridge this gap in hardly-reached populations. 2 We evaluated the impacts of

ACTIVATE, a community-engaged project co-developed with community partners AmplaHealth, and a local grower. METHODS/STUDY POPULATION: Mixed-methods outcome evaluation included attitudes survey, knowledge tests, attendance records, exit interviews, and participant observations. Attitudes survey, based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model 3, measured Latino farmworkers' telehealth acceptability. Pre/Post knowledge tests measured participant knowledge gained on telehealth and mental health services. Semi-structured exit interviews identified the impacts of incentives, Promotora training, and health education curricula on participants and community partners. Structured participant observation ascertained the level of participant engagement and Promotora facilitation skills. RESULTS/ANTICIPATED RESULTS: Results [https://drive.google.com/file/d/1jQpQdDM3dIR\_PzMclxXPh45Jvz8uBka6/view] On what aspects of the project worked well: "This project really helped us... to make it a priority, to do [health education] workshops. When I was hired, we went out to a few farms and shared information about our services, but it wasn't anything hugely structured like what you proposed. We hadn't done a whole lot of Promotora health education prior to this project." -Ampla Health Administrator The most significant change observed: "Their attitudes... I feel that the very first session, I saw how they were more laid back, not really answering questions, just listening to us. And then the second one... they were more talkative and the very last one they were more comfortable sharing." -Promotora DISCUSSION/SIGNIFICANCE: Attendance and participant engagement increased over time. Results from the evaluation point to greater telehealth acceptability among participants, increased health education capacity among Ampla Health, and farm worker cohesiveness at the workplace.

213

### Accelerating Translational Science Through Dissemination Grants with Community Impact

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OBJECTIVES/GOALS: Promoting Academics and Community Engagement (PACE) Dissemination grants are funding opportunities via the Michigan Institute for Clinical and Health Research Community Engagement program designed to support the science of clinical and translational research demonstrating community impact. METHODS/STUDY POPULATION: Two statewide funding announcements over a 3-month period were issued to over 2,000 academic and community partners. Proposals were required to meet the following criteria: 1) data collection from an academic and community partnered research project completed; 2) research findings analyzed; and 3) a community-focused dissemination plan developed. Projects were funded up to \$5000. RESULTS/ANTICIPATED RESULTS: Six PACE dissemination grants with community-focused plans were funded spanning Southeast, Western, and the Upper Peninsula regions of Michigan, as well as statewide. Examples of funded projects topics areas include the following: firearm safety; housing discrimination; opioid misuse; suicide prevention; and youth mental health. Community dissemination activities include: a) presenting at a community town hall; b) writing a pamphlet for community use; c) creating artwork installation showcase for community display; d) storytelling through community channels; and e) designing and implementing a local social media campaign. DISCUSSION/SIGNIFICANCE:

Traditional funding mechanisms often do not provide resources to disseminate research findings with community benefit or impact back to communities. Funding dissemination awards through the PACE mechanism directly supports and accelerates translational science by sharing results directly back to the community in meaningful ways.

214

### Racism-based stress injury and biomarkers of stress: A Feasibility and Correlation study

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OBJECTIVES/GOALS: Racial discrimination and its associated stress are well-documented contributors to health disparities among African Americans (AA). This feasibility study aimed to acquire methodological insights and build the infrastructure for a subsequent mindfulness interventional study to reduce the effects of racism-based stress. METHODS/STUDY POPULATION: 20 AA participants (female 12, male 8) ages 18-50 were enrolled, and clinical data (blood pressure, waist/hip, BMI, lipids, HbA1c, creatinine) for Allostatic Index were collected. Racism-based stress was measured using RBTSSS and the Everyday Discrimination Scale (EDS). Psychometric measures (Coping, resilience, mindfulness, social connection) and sleep (PSQI) were included. Bivariate analysis explored associations between psychological measures and stress biomarkers, supported by Spearman's correlation analysis. RESULTS/ANTICIPATED RESULTS: Low discrimination (EDS) was associated with a lower Total cholesterol/HDL ratio (2.99 vs. 4.20,  $p=0.009$ ) and higher HDL (62 vs. 52,  $p=0.001$ ). Low EDS participants also had better sleep (mean=3, SD=1.33, vs. mean=5.8, SD=3.99,  $p=0.05^*$ ) but reported less coping through drugs and alcohol ( $p=0.022^*$ ) and higher resilience ( $p=0.047^*$ ). Mindfulness negatively correlated to sleep disturbance ( $r=-0.477$  to  $r=-0.62$ ), coping and resilience. EDS correlated with overall life stress and drug and alcohol use. Sleep disturbance was negatively associated with social connection ( $r=-0.569^{**}$ ) and mindfulness. Sleep disturbance and discrimination correlated positively with drug and alcohol use and overall life stress ( $r=0.52$  and  $r=0.59$ , respectively), while resilience was negatively correlated with sleep ( $r=-0.45$ ). DISCUSSION/SIGNIFICANCE: Discrimination was associated with increased stress and unfavorable coping, while mindfulness may offer potential benefits for sleep, coping, and resilience. These preliminary findings provide a foundation for further exploring the potential of mindfulness interventions to address the biopsychological impacts of racism-induced stress.

215

### Weight Stigma as an Ongoing Challenge for Mental Health Post-Bariatric Surgery

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OBJECTIVES/GOALS: The objective for this study was to evaluate the associations between weight stigma and symptoms of depression, anxiety, and binge eating following bariatric surgery. METHODS/STUDY POPULATION: Bariatric surgery is the leading evidence-based treatment for severe obesity; however, mental health challenges can compromise long-term improvements in quality of life.