

factors and adverse maternal outcomes. Opportunities for improving personal recovery capital are accessible in residential facilities, however, further exploration of unmet social determinants of health factors are needed for recovery retention.

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### **Advancing our Communal Understanding of Rectal Cancer Disparities and Identifying Opportunities for Improvement (ACUeRDO)**

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**OBJECTIVES/GOALS:** Mechanisms underlying racial and ethnic disparities in rectal cancer care remain poorly understood. We aimed to identify barriers and facilitators to care among rectal cancer patients who identify as Hispanic/Latino (H/L) and to understand how these factors may differ based on rurality, social/physical context, and community support. **METHODS/STUDY POPULATION:** We utilized qualitative methods and a community-based participatory research framework, including partnership with a community-based organization and oversight from a community advisory board. We developed an initial semi-structured interview guide based on an ecological model of health behavior and then iteratively refined it with the assistance of our partners to incorporate unique aspects of the H/L community in a culturally appropriate manner. Eligible patients and their caregivers are invited to participate in hour-long interviews in both English and Spanish, depending on participants' preferences. All interviews are recorded, translated, transcribed, and coded. Findings will be compiled and fed back to participants and community stakeholders as a part of a community forum. **RESULTS/ANTICIPATED RESULTS:** We identified 6 areas for discussion based on our model: health beliefs (perceived severity, benefit, and barriers; self-efficacy), health literacy, others' experiences with cancer, patient-provider relationship (patient-provider communication; provider-provider communication; language; cultural competency; discrimination), sources of support, and access to care. Participants are currently being recruited by clinical providers, through flyers in the cancer center, or via outreach from our community partner. We have interviewed 8 participants to date, with discussions ranging from the shock of the initial diagnosis, difficulties with navigating specialty care, and the complexities of shared decision making. We are expecting a total of 30-40 interviews to reach thematic saturation. **DISCUSSION/SIGNIFICANCE:** We hope to improve our understanding of mechanisms underlying racial and ethnic disparities in rectal cancer care and to identify potential targets for improvement. We plan to use our results to develop community-based policy interventions to improve care delivery, patient experience, and health equity.

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### **A Qualitative Study of Black and Latine HIV Care Consumers' Perceptions of Providers' Behaviors, Medical Mistrust, and Experiences of Discrimination**

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**OBJECTIVES/GOALS:** There is a scarcity of research examining the views of Black and Latine HIV care consumers on healthcare experiences that influence medical mistrust. The present qualitative study aims to bridge the existing gaps in the literature pertaining to the experiences of Black and Latine HIV care consumers. **METHODS/STUDY POPULATION:** We conducted 21 semi-structured interviews with Black and Latine HIV care consumers from November to December 2021 to explore perceptions of provider behaviors that increase or decrease HIV care consumers' trust and mistrust, experiences of stigma, and behaviors and responses when experiencing medical mistrust. Conventional content analysis was conducted to derive meaning from the narratives shared by participants. **RESULTS/ANTICIPATED RESULTS:** Provider behaviors that increase HIV care consumers' mistrust include lack of person-centered care, lack of partnership in health decision making, perceived provider incompetence, lack of adequate follow-up to care, and lack of trustworthiness of providers and organizations. Perceived experiences of intersectional stigma in healthcare included feeling judged and discriminated against by healthcare providers regarding HIV status and observing differential care outcomes and delayed care delivery by race and ethnicity. **DISCUSSION/SIGNIFICANCE:** Findings can inform the development of provider-level interventions to address medical mistrust.

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### **Cervical Cancer Disparities: Knowledge, Screening and Willingness to adopt testing modalities among Hispanic/Latinx Women in Lake County, Indiana**

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**OBJECTIVES/GOALS:** There are notable disparities in cervical cancer screening. The objective of this study was to examine knowledge, screening practices, attitudes towards cervical cancer screening, and willingness to adopt screening innovations such as self-sampling and HPV rapid testing for cervical cancer among Hispanic women in Lake County, Indiana. **METHODS/STUDY POPULATION:** This mixed-methods study encompassed an online cross-sectional survey (n=231) and in-depth interviews (n=9) of individuals with a cervix aged 21-65 residing in Lake County, Indiana. Outcome variables focused on cervical cancer knowledge, willingness to adopt self-sampling, and willingness to adopt HPV rapid testing. Descriptive statistics included frequencies and percentages. A cervical cancer knowledge score was computed from 7 questions. Scores below the mean 3.62 were labeled 'low' while higher scores were 'high'. We also examined associations between demographic and outcome variables. Quantitative analysis was conducted using SPSS software. Qualitative analysis was conducted using NVIVO software to thematically analyze interviews using deductive and inductive coding techniques. **RESULTS/ANTICIPATED RESULTS:** Majority of participants identified as Hispanic (58%), aged 31 or older (58%). While 80.5% reported being screened for cervical cancer, only 44.6% demonstrated 'high' cervical cancer knowledge. 89.6% felt screening is important as emphasized in qualitative findings for its preventive value. Over half were willing to take their vaginal swab in clinic (55.8%) and at home (51.9%). However,

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.

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### **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.

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### **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.

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### **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