

low-income communities. These women face heightened health risks due to sedentary lifestyles, educational gaps, and socio-environmental barriers. This project targets the pronounced prevalence of allostatic burden in this population by applying a culturally sensitive, bottom-up approach. Our goal of incorporating healthy lifestyles to improve health in at-risk women and their families requires multiple projects. This project is a necessary first step in engaging with a community to identify local environmental circumstances and barriers to increasing the relevance of physical activity within the home. These barriers can then be addressed by adapting an exercise promotion program to the needs of this community. **DISCUSSION/SIGNIFICANCE:** Black women in under-resourced communities are more likely to be sedentary and have poor health. Exercise programs can be a powerful tool to address disparities and help prioritize health. The circumstances of women in public housing in Birmingham, AL, need community partners to adapt exercise engagement programs to meet environmental challenges.

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### **Association of premature birth with neurodevelopment delays in a cohort of Hispanic children exposed to the Neonatal Intensive Care Unit (NICU)**

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**OBJECTIVES/GOALS:** We aim to identify neurodevelopment delays among children who were born prematurely. We will also calculate the sensitivity and specificity of the assessment tools used to measure the neurodevelopmental profile in early childhood of children exposed to the Neonatal Intensive Care Unit (NICU). **METHODS/STUDY POPULATION:** This cross-sectional study will include 100 premature children who were born between 32 to 37 weeks of gestational age and admitted to NICU at the University Pediatric Hospital in Puerto Rico. Their neurodevelopment will be measured with the Bayley III. Statistical analysis will be performed using IBM SPSS Statistics 25.0. Descriptive statistics will be used, normality distributions among all continuous variables, frequency distribution for categorical variables and logistic regressions to test association of GA and neurodevelopment delay. We will use the raw item scores for each domain of the Bayley III assessments to measure internal consistency using Cronbach's alpha and factor analysis. **RESULTS/ANTICIPATED RESULTS:** We anticipate identifying the ND among children born prematurely between 32 to 37 weeks of gestational age and who were admitted to NICU at the University Pediatric Hospital in Puerto Rico. We also expect to find if gestational age impacts adversely ND in children who were born between 32 to 37 weeks of gestation. We will be able to assess if lower gestational age will impact global ND in contrast to higher gestational age neurodevelopment delays in one specific area of development. We will also be able to assess the sensitivity and specificity of the Bayley- III. **DISCUSSION/SIGNIFICANCE:** Premature is a major global health problem with a 12.0% prevalence. We want to promote early identification of ND in a diverse Hispanic Puerto

Rican population so we can guide public health decisions and lead research initiatives to improve outcomes in the future or facing prematurity.

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### **"How will I get there" Institutional guidance and support for research-related transportation to engage diverse participants from underrepresented populations**

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**OBJECTIVES/GOALS:** Transportation is a barrier to research participation, especially for participants from disadvantaged backgrounds. Our goal was to review existing policies and create recommendations for institutional guidance on research-related transportation to support a long-term birth cohort study. **METHODS/STUDY POPULATION:** To summarize existing institutional policies on research-related transportation (i.e., transportation of participants or research staff travel to/from research activities), we requested and, in addition, searched for such policies across 28 sites involved in the NIH HEAL Initiative's HEALthy Brain and Child Development (HBCD) study. The HBCD study plans to enroll 7,500 pregnant/postpartum persons, follow their children and families long-term, and assess factors influencing brain and child development. The obtained policies were then summarized, followed by identification of gaps in their recommendations and guidance. **RESULTS/ANTICIPATED RESULTS:** Outreach to the HBCD study sites and search of their institutional websites resulted in identification of 6 institutional policies or other guidance related to research-related transportation across five HBCD study sites. Three policies/guidance related to ride-share programs in research, two related to reimbursement for participant travel, and the fifth was about car seats. Through the online search, we also found policies or written guidance about employee-related transportation within 15 HBCD study sites in total; they largely pertained to employee business travel and did not specifically address research-related transportation. **DISCUSSION/SIGNIFICANCE:** To optimally support research teams, participants, and to promote the enrollment and retention of participants from diverse backgrounds, it is critical for research institutions to develop and implement guidance on research-related transportation and remove barriers to participation in research.

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### **Bridging Health Equity: A Model for Primary Healthcare in the Hamilton, Ontario's Keith Neighbourhood**

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**OBJECTIVES/GOALS:** A primary care clinic is opening in the Eva Rothwell Center (ERC) located in the Keith Neighbourhood of Hamilton, Ontario. This new clinic aims to address rampant health disparities in the community. Effective delivery of health services requires a robust model of care that meets and sustains the specific needs of the community and clinic providers. **METHODS/STUDY POPULATION:** The primary objective of this study is to describe the current health needs of Keith Neighbourhood residents. The secondary objective is to describe the needs of health providers working within the ERC health clinic. Data collection will involve the

collection of primary data (through methods such as surveys and interviews) and secondary data (including historical and current census data). Primary data analysis for primary will use conventional quantitative and qualitative methods. Finally, researchers will use the analyzed data to develop a context-appropriate initial model of care for the ERC health clinic and a subsequent evaluation plan to assess the model's effectiveness and sustainability. RESULTS/ANTICIPATED RESULTS: All primary and secondary data will be synthesized into a report that will inform the development and implementation of two main deliverables. The first deliverable will be a framework for the clinic's initial model of care that is context-appropriate to the current needs of the Keith Neighbourhood. The model of care will be culturally sensitive and trauma-informed. The second deliverable will be an evaluation plan for the clinic that can be used to continuously iterate on the initial model, ensuring its sustainability. Furthermore, the project's process may be extrapolated into a framework that could be used to establish primary care clinics within other priority communities. DISCUSSION/SIGNIFICANCE: The proposed model of care will enable practitioners to deliver relevant and timely health services while being adaptable to the community's evolving needs. It will help improve the Keith Neighbourhood residents' long-term health and social outcomes. This project will contribute to and inform the development of the field of translational science.

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### **The role of family and filial piety in serious illness and end-of-life decision making in the Chinese diaspora: an exploratory qualitative study**

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OBJECTIVES/GOALS: The process of decision making in serious illness and end-of-life care needs to be culturally appropriate, relevant, and equitable. For Chinese Americans, family and filial piety have been shown to impact this process, yet it remains poorly understood how. The purpose of our study is to explore this decision-making process qualitatively. METHODS/STUDY POPULATION: We created semi-structure interview guides, based on a literature review of values salient to serious illness and end of life care for Chinese Americans. The guides will be used to conduct three focus groups, each with ten participants who identify as Chinese American stratified by highest attained familial role (grandparents, parents, and adult children). This will be done in partnership with Greater Boston Chinese Golden Age Center, a local community organization, in English, Cantonese, and Mandarin using our interview guides with live interpretation. Focus groups will be audiotaped, transcribed, and analyzed using thematic content analysis and modified grounded theory. RESULTS/ANTICIPATED RESULTS: We anticipate that we will identify how, by whom, and why Chinese Americans in Boston's Chinatown make decisions during serious illness and end-of-life. We anticipate that we will clarify cultural values, the balance between individual and collective values, intergenerational processes, individual and family suffering, and themes salient to this process. We expect to elucidate the role of family and filial piety during serious illness and end-of-life decision making and compare how these processes differ by generation and familial role for this

population. DISCUSSION/SIGNIFICANCE: Using the family as a unit of investigation and focusing on intergenerational processes represent a novel approach to understanding decision making during serious illness and end of life care for Chinese Americans.

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### **Benefits of leveraging community-academic partnerships to plan and implement the Great Plains IDeA CTR Annual Community-Engaged Research Institute**

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OBJECTIVES/GOALS: Building community-engaged research capacity is imperative to improve translation, but not everyone exhibits capacity to conduct research, especially community. We modified the research institute planning and implementation process between 2022 and 2023 to increase community appeal and engagement. METHODS/STUDY POPULATION: The 2022 and 2023 Community-Engaged Research Institutes (CERI) varied in their formats. For 2022, we hosted a one-hour planning session with community-academic dyads from our Community Advisory Board facilitated by the CEO director and co-director. The 2022 CERI consisted of five sessions totaling 12 hours. The first session was hybrid, followed by four virtual sessions. For 2023, we hosted two, facilitated one-hour planning sessions with community partners who attended the 2022 CERI, based on feedback and attendance from 2022. The 2023 CERI was consolidated to a seven-hour, one-day hybrid session. RESULTS/ANTICIPATED RESULTS: In 2022, two community partners participated as CERI panelists. There were 95 unique attendees spanning five days. Of the 95 attendees, 67% (n=64) were researchers and 33% (n=31) were community members. In 2023, eight community partners participated as CERI panelists and presenters. There were 57 unique attendees, of which 61% (n=34) were researchers and 39% (n=23) were community members. When comparing attendance for 2022 (29%, n=28) and 2023 (86%, n=49), in-person attendance was increased by 57%. DISCUSSION/SIGNIFICANCE: In 2023, we focused on research capacity building for community partners to align with community engagement principles and increasing research impact across the translational spectrum. Partnering with community elevated appeal for community participation and an increase in-person attendance.

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### **Four Pillars of Community Health and Research Engagement: The UT Southwestern CTSA Program's Innovative Approach to Putting the Community Health Science Model into Practice**

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OBJECTIVES/GOALS: Goals: Engage in collaborative approaches that target health disparities, especially among communities experiencing poverty or ethnic/racial minorities. Develop and sustain effective community-academic partnerships that foster trust through