

were permanent residents in 8 villages of Rwampara District, southwestern Uganda from 2011-2012 who reported having a primary partner in the past 12 months. We surveyed participants to assess their exposure to 12 different forms of verbal, physical, and/or sexual IPV, and whether they had ever been tested for HIV. We used three separate modified Poisson regression models, clustering by village, to estimate the association between each type of IPV and ever testing for HIV, adjusting for categorical age, completion of more than primary education, and any food insecurity measured by the nine-item Household Food Insecurity Access Scale. RESULTS/ANTICIPATED RESULTS: Among 496 women with a primary partner (>95% response rate), 64 (13%) had never tested for HIV, 297 (60%) reported verbal IPV, 81 (16%) reported physical IPV, and 131 (26%) reported sexual IPV. Further, among these women, 208 (42%) were aged <30 years, 378 (76%) had a primary or no education, and 390 (79%) experienced food insecurity. Never having been tested for HIV was positively associated with physical IPV (adjusted risk ratio (ARR): 1.61, 95% confidence interval (CI): 1.02-2.56) and negatively associated with verbal IPV (ARR: 0.67, 95% CI: 0.44-0.99), but not sexual IPV (ARR: 1.05, 95% CI: 0.51-2.12). DISCUSSION/SIGNIFICANCE OF FINDINGS: Among this population of adult women with partners in Uganda, physical IPV was associated with never testing for HIV while verbal IPV was associated with increased testing for HIV. Evidence suggests that HIV testing interventions should consider IPV prevention, and future studies should focus on why certain IPV types impact HIV testing rates.

77099

### Implementation of the Capute Scales and Prechtl's General Movement Assessment in Infants with Single Ventricle Physiology

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ABSTRACT IMPACT: Through this research, I will transform the standard of care for infants with single ventricle physiology by incorporating the Capute Scales and General Movement Assessment into day-to-day clinical care for these infants, leading to early detection of neurodevelopmental disabilities and access to proven therapies. OBJECTIVES/GOALS: Our objective was to establish a new protocol to detect and quantify developmental delays in multiple domains in infants with single ventricle physiology, a type of congenital heart disease. This population is at high risk for neurodevelopmental disabilities. METHODS/STUDY POPULATION: We implemented a novel protocol using the Capute Scales and General Movement Assessment to evaluate early language, cognitive, and motor development in infants with single ventricle physiology. The infants were evaluated between 1-5 months of age in the cardiac neurodevelopmental program. We defined our primary outcomes as (1) language and (2) cognitive developmental quotients as per the Capute Scales and (3) results of the General Movement Assessment. We hypothesized that infants with single ventricle physiology would have typical language and cognitive development and normal General Movement Assessment results at their initial evaluation. RESULTS/ANTICIPATED RESULTS: We recruited ten infants with single ventricle physiology. All ten infants had typical language development, and nine of the ten had typical cognitive development, as measured by the Capute Scales. All of the infants had gross motor delay. Due to medical instability, we only evaluated four infants with the General Movement Assessment. All four of the infants had a normal result, suggesting that their central nervous system motor pathways were maturing appropriately. In future studies, we will track the

neurodevelopmental outcomes of each participant as they mature. We expect to see a decrease in expressive language development and preserved receptive language and cognitive development. DISCUSSION/SIGNIFICANCE OF FINDINGS: The combination of General Movement Assessment and Capute Scales in the evaluation of infants with single ventricle physiology will provide early identification and intervention for these high-risk children, allowing access to proven treatments and therapies.

83569

### Receipt of Pharmacologic Weaning Therapy and Developmental Delay

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ABSTRACT IMPACT: This study evaluates the long term effects of pharmacologic weaning therapy for opiate exposed infants. OBJECTIVES/GOALS: Infants born to chronic opioid users often suffer from neonatal abstinence syndrome (NAS), a condition characterized by tremors, diarrhea, hyperirritability and an inconsolable high-pitched cry. Symptoms are treated with pharmacologic weaning therapy, but long-term effects of this treatment have not been established. METHODS/STUDY POPULATION: A sample of infants born between 2011-2017 was obtained from a large metropolitan hospital system. All infants who were exposed to opioids and received a Finnegan score were included in the sample (N=1,807). The analysis utilizes three dependent variables to measure developmental delay: motor delay, language delay or any delay, which includes general/non-specific delay in addition to motor and language delay. The treatment is defined as receipt of pharmacologic therapy with methadone or morphine. Maximum Finnegan score was also included as a continuous measure of the extent of the infant's withdrawal symptoms. Linear models were utilized to determine a relationship between pharmacologic therapy and developmental delay with Maximum Finnegan score as an interaction term. RESULTS/ANTICIPATED RESULTS: In the linear models examining the main effects of weaning therapy on developmental delay, there was no relationship between pharmacologic therapy and motor delay (p=.260), language delay (p=.542) or any developmental delay (p=.176). When maximum Finnegan score was entered into the model as an interaction term the relationships were not significant. DISCUSSION/SIGNIFICANCE OF FINDINGS: These results suggest that while pharmacologic weaning is an appropriate treatment for withdrawal symptoms in infants, it is not a deterrent against developmental delays associated with NAS. This provides support suggest an increased focus on non-pharmacologic interventions such as breastfeeding as the first line of treatment for NAS infants.

90232

### Implementing the innovative academic Learning Health System Scholars (aLHSS) Postdoctoral Training Program (TL1) at Wake Forest University Health Sciences (WFUHS)

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ABSTRACT IMPACT: Learning Health System (LHS) Science that trains postdoctoral scholars from diverse professional backgrounds in methodological and professional skills to implement rigorous research in health care systems and populations, and to disseminate the findings of such research to improve healthcare delivery OBJECTIVES/GOALS: The WFUHS CTSA developed an innovative

TL1 in Learning Health System (LHS) Science that trains postdoctoral scholars from diverse professional backgrounds in methodological and professional skills to implement rigorous research in health care systems and populations, and to disseminate the findings of such research to improve healthcare delivery METHODS/STUDY POPULATION: Training is centered around formal LHS science coursework and mentored research projects that address a pressing health system issue. Projects are closely guided by a primary mentor and a multidisciplinary mentoring team. Program mission and competencies were carefully evaluated in a competency-course matrix to design new courses for the LHS Certificate and MS program in Translational and Health System Science (THSS). Course domains include biomedical informatics; improvement and implementation science; system science and organizational change management; stakeholder engagement, leadership, and research management; ethics of health systems research; and health systems research methods. Scholars set up Individual Development Plans (IDP) and self-assess 7 domains of LHS core competencies. RESULTS/ANTICIPATED RESULTS: The first professionally diverse group of scholars (MD, PhD, DrPH, PharmD) began the program in Summer 2020; onboarding was conducted virtually. Scholars currently conduct most of their research and training in a virtual, synchronous format. Each developed a detailed IDP and LHS research project, which was reviewed by their LHS mentoring teams (includes a primary mentor, co-mentor, TL1 core faculty mentor, peer mentor, and health system mentor). Coursework, leading to a 1-year certificate or 2-year MS degree, was selected based on individual background and career goals and was begun in August 2020. In addition to the courses noted above, Scholars are embedded in a healthcare improvement team. We use the process of a LHS and hold weekly TL1 leadership meetings to swiftly address challenges and implement improvements DISCUSSION/SIGNIFICANCE OF FINDINGS: We envision that TL1 Scholars will build independent LHS research programs or lead health system innovation. Program evaluation includes assessments of Scholar fluency in LHS competencies and attainment of key milestones during and after training. Annual TL1 faculty retreats will address program fidelity and implementation of program refinements

## Health Equity & Community Engagement

11384

### Medication Use Safety During Care Transitions for Children with Medical Complexity

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ABSTRACT IMPACT: This study will generate preliminary data to address a critical, care transition-related patient safety gap involving medication use among children with medical complexity. OBJECTIVES/GOALS: The objectives of this study are: (1) to understand care transition-related medication safety risks for children with medical complexity (CMC), and (2) through a participatory, human centered design (PD) approach, to develop an early prototype intervention to address identified safety risks. METHODS/STUDY POPULATION: The study population includes children with medical complexity (CMC), a medically fragile pediatric population with

intensive healthcare needs. CMC rely on multiple and complex medication regimens and/or medical devices for optimal functioning. Parents of CMC report multiple unmet healthcare needs. For Aim 1, we will conduct observations and interviews with ~15 clinicians as well as semi-structured interviews with ~30 family caregivers during three care transition experiences: from Cardiac ICU to home, Neonatal ICU to home, and those between primary care/specialty clinic to home. For Aim 2, we will conduct participatory design sessions with up to 5 participants (separately for clinicians and family caregivers) from each of the three care transition settings to co-design a prototype intervention. RESULTS/ANTICIPATED RESULTS: The study is currently recruiting family caregivers of CMC for aim 1 research activities, with interviews planned to be completed in February/March 2021. Transcribed interviews will be used to inform development of patient journey maps. A patient journey map helps to visually depict healthcare services through the patient and family lens, and highlights important 'touch points' along the patient journey (e.g., decisions, encounters, constraints, emotional states, etc.) that shape the patient and family experience. The journey map will distill findings from qualitative data and generate a concise visual story focused on the medication use experience of CMC as they transition between the hospital and their home. Individual journey maps will also be combined to generate a consolidated journey map. DISCUSSION/SIGNIFICANCE OF FINDINGS: An-in-depth understanding of medication safety risks unique to the context of CMC care would be essential to develop interventions that are useful, scalable, and sustainable. This is even more important because current interventions are primarily adopted from adult care settings with mixed outcomes.

14154

### Facilitating Community/Campus Research Teams and Projects: Community Health Small Grants Program

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ABSTRACT IMPACT: The UTMB Institute for Translational Sciences (ITS) seeks to advance the field of community engagement and facilitate competency in community-engaged and community-based participatory research as a means of expanding team science to integrate community involvement and to assist investigators in building relationships that enable them to contribute to community initiatives. OBJECTIVES/GOALS: The UTMB ITS recently implemented a new Community Health Small Grants program to promote and enhance community-campus partnerships. Our goal is to better translate science from discovery to clinical practice and public health through community-engaged research, education, and dissemination. METHODS/STUDY POPULATION: Applications were solicited from community and academic research partners. Community partners may include existing collaborative groups, community health centers, health departments, nonprofits, schools, social services agencies, practice-based research networks, or Community Advisory Boards. Academic partners may include faculty and/or students. The PI may be a community or academic partner. While this Grants Program will transition to the ITS Pilot Project Program, it will utilize a separate review process and scoring rubric focused on immediate and future community benefit, project