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.

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.

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.

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