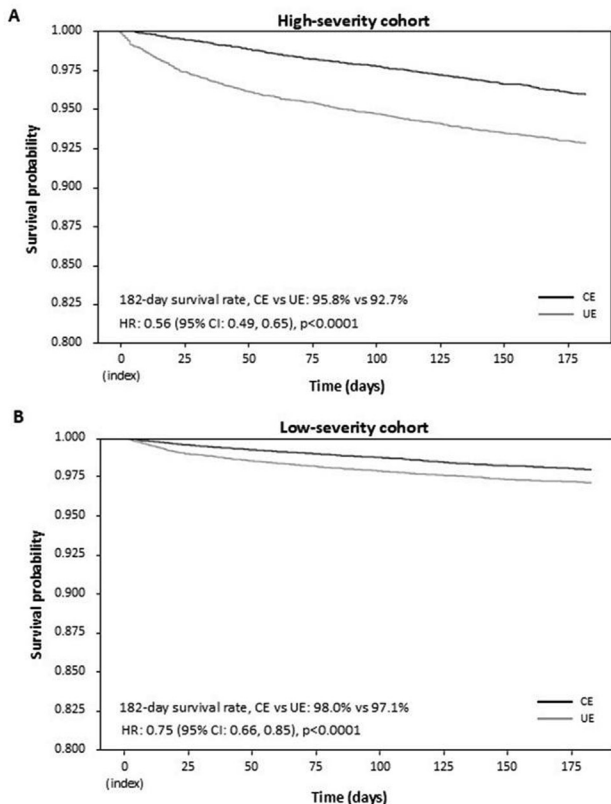


CE utilization rate were also evaluated for both cohorts. Standard statistical methods were utilized. **Results:** There were approximately 31 million patients included in the overall dataset, of which 164,177 patients were identified as having CE with perflutren lipid microspheres; the majority of CE patients did not have the contrast agent specified. More patients in the CE vs UE group had high-severity comorbidities (23.9% vs 13.0%). In the overall population, a mortality hazard ratio of 0.66 ( $p < 0.001$ ) was calculated for CE compared to UE, indicating a 34% reduction with CE using perflutren lipid microspheres. The high-severity cohort (HR: 0.56;  $p < 0.001$ ) and low-severity cohort (HR: 0.75;  $p < 0.001$ ) both independently demonstrated reduced mortality with CE as well. Compared with UE, CE was also associated with hospital stays approximately 2 days shorter and with \$555 lower inpatient costs. For the high-severity cohort, increased CE utilization rates at the facility level resulted in lower costs (total and inpatient) per patient. **Conclusions:** Although CE remains underutilized in clinical practice, it provides important clinical benefits that support its wider use, especially in patients with high-severity comorbidities. These findings indicate that increasing CE utilization may further enhance facility efficiency and reduce the cost of patient care.

Figure 1. Kaplan-Meier estimates of survival probability over 6 months post-index for patients receiving CE and UE - cohort with high-severity comorbidities (A) and cohort with low-severity comorbidities (B)



Abbreviations: CE, contrast echocardiography; CI, confidence interval; HR, hazard ratio; UE, unenhanced echocardiography.

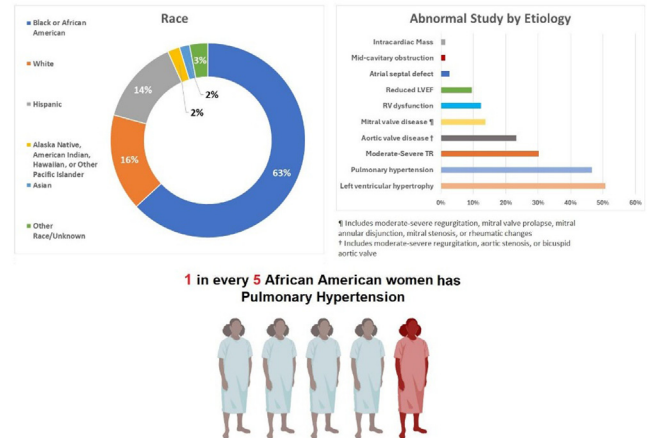
#### PC2-19 - Oral

##### EVERY HEART MATTERS PROGRAM: A Community Based Echocardiographic Screening Program to Reduce Cardiovascular Disparities

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**Background:** Lack of access to medical care is a major contributor to disparities in today's healthcare system. The Bronx Valve Registry showed gaps in access to valvular heart disease (VHD) treatment for Black and Hispanic patients, relative to their White counterparts. Black women (BW) had the lowest rates of echocardiography use. Data like this supports the Call to Action by ACC/AHA to reduce healthcare disparities to diagnose and treat structural heart disease (SHD). We sought to offer free screening transthoracic echocardiograms (TTE) to underserved patients in Western PA in efforts to diagnose VHD and all forms of SHD. **Methods:** Grants from large community organizations sponsored Every Heart Matter's Initiative. We targeted low-income neighborhoods through community centers and federally qualified health centers and provided screening TTE for patients without

known SHD. Patients are notified of TTE results and offered a cardiology referral if needed. **Results:** A total of 310 patients have been included in the study (with a target of 500 patients by 2026). 63% are Black and 66% are women. Mean age is  $59 \pm 15$  years and mean BMI is 31. Average blood pressure is 139/83 mmHg. 74 patients (24%) had an abnormal study of various etiologies prompting referral to a cardiologist. Social determinants of health (SDOH) questionnaires revealed a higher SDOH burden in African American (Score 5.2) compared to their underserved white counterparts (Score 3.5;  $p = 0.013$ ). Women of color (Black, Hispanic, Asian, Native, and other minorities) have an odds ratio of 5.2 [95% CI: 1.2-22.9;  $P = 0.03$ ] for an abnormal echocardiogram as compared to White women (WW). Notably, 22% of BW have pulmonary hypertension (PH) which is much higher than in general population (1-4%). (Figure) **Conclusion:** We demonstrate that women of color, particularly BW, are disproportionately affected by undiagnosed heart disease and have a higher prevalence of PH. Prior studies have shown similar trends, highlighting increased mortality and hospitalization rates in this population. Early detection through screening TTE could enable timely diagnosis and management, potentially reducing morbidity and mortality in this high-risk population.



#### PC2-20 - Oral

##### Standardization of Left Ventricular Systolic Function Evaluation in a Pediatric Echocardiography Lab

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**Background:** Left ventricular (LV) systolic function grade is regularly reported on echocardiograms, however clear guidelines for grading function on pediatric, and particularly neonatal echocardiograms, is limited with variable recommendations. In addition, shortening fraction (SF) and ejection fraction (EF) measurements may suggest discrepant qualitative grades. These inconsistencies result in challenges for reporting echocardiographers and clinicians. **Methods:** Using quality improvement methodologies, a project was designed with an aim of improving accuracy of LV systolic function grading by 10% within 12 months. Key drivers diagram was developed including planned interventions and metrics (Figure 1). Stakeholders engaged for consensus on grading, including separate grading scale in neonates (Figure 2a). Echocardiographic reports and images were independently reviewed by the study team for inconsistencies, and individual feedback on inconsistent reports was provided during PDSA cycles. **Results:** Data was collected from echocardiograms reporting abnormal function on biventricular hearts. Complete data is reported in Figure 2b. Qualitative grading without any quantification was noted on 18% of studies at baseline and 15% after cycle 2. Inconsistencies in grading by EF decreased from 31% to 14% overall; most notable in studies graded "mildly depressed". **Conclusions:** In a pediatric echo lab, a significant percentage of studies report LV systolic function qualitatively. After interventions, we demonstrated an increase in percentage of studies with grading consistent with consensus lab standards. Additional PDSA cycles are being utilized for further standardizing LV systolic reporting on pediatric echocardiograms.

