

required in some. **DISCUSSION/SIGNIFICANCE:** When crises necessitate rapid action in communities, the depth of prior investments in building and maintaining relationships makes a difference in how rapidly and successfully partners can work together to address a crisis like the COVID-19 pandemic. Funders and Academic researchers should invest broadly in communities to enable rapid responses.

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### The Impact of Minimum Volume Thresholds on Geographic Access to Stroke Thrombectomy

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**OBJECTIVES/GOALS:** At least 15 stroke thrombectomies per proceduralist per year are required for Thrombectomy-Capable and Comprehensive Stroke Centers. We sought to estimate the potential impact of these minimum volume thresholds on geographic access to stroke thrombectomy (ST). **METHODS/STUDY POPULATION:** Using the Florida State Inpatient Database, we will identify patients discharged with acute ischemic stroke from 2015-2019 and all non-federal facilities that performed  $\geq 1$  ST procedure per year. We will then calculate the proportion of stroke patients who live within 20, 65, 115, 165 and 200 miles (correlating with estimated ground transport times of 1, 2, 3, 4 and 5 hours, respectively) of centers that perform ST using ArcGIS software and evaluate the impact of varying the threshold ST volume required by each facility on this proportion. We will then perform multiple two proportion z-tests to compare proportions of patients within driving distance over time. **RESULTS/ANTICIPATED RESULTS:** We hypothesize that over time, and particularly after the pivotal trials of ST were published in 2015, that the number of facilities that perform ST have increased over time, which would increase the geographic access to ST. We also hypothesize that since the Joint Commission set the minimum procedural volume for proceduralists at Thrombectomy-Capable and Comprehensive Stroke Center to 15 per year, this would work to increase regionalization and could work to decrease geographic access to ST. However, we hope to elucidate the net impact of the interplay between these two opposing factors on regionalization of care over time which is currently unclear. **DISCUSSION/SIGNIFICANCE:** Current ST volume thresholds have focused on technical proficiency but may impact regionalization of care and geographic access to ST. Since access to ST is time-sensitive, a data-driven approach and better coordination on a regional level may be necessary to ensure timely access to ST.

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### Caregiving burden and resilience: a mixed methods analysis in dyads managing a VAD in the home\*

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**OBJECTIVES/GOALS:** Caregivers of patients with ventricular assist devices (VAD) are invaluable contributors to patient health, but they may experience psychological symptoms or worsening quality of life related to caregiving. We aimed to explore VAD caregiving burden and resilience comparing high and low burden patient-caregiver

dyads. **METHODS/STUDY POPULATION:** Using a convergent mixed-methods design, we conducted semi-structured interviews and collected self-reported surveys from patient-caregiver dyads. Patients (n=10, mean age 55.8 years) were mostly white males implanted as destination therapy. Caregivers (n=10, mean age 52.6) were mostly white females. Most dyads were spousal (n=6). Caregiver burden was measured with the Zarit Burden Interview Scale, using the median score to categorize lower and higher burden dyads (median = 12, IQR = 8). Data were analyzed using deductive and inductive coding for thematic analysis. **RESULTS/ANTICIPATED RESULTS:** Lower and higher burden dyads described the shared burden experience of 1) hyper-vigilance and uncertainty immediately post-implant and 2) changing relationship roles. Lower burden dyads were more likely to be able to take on responsibilities outside of caregiving. Contextual differences among higher burden dyads included higher financial strain, less social support, worse quality of life (both patients and caregivers) and worse heart failure severity compared to lower burden dyads. All dyads were resilient, using coping strategies like cognitive reframing, positivity, and adaptation to new roles. Higher burden dyads were more vulnerable to coping fatigue and were more likely to express that the VAD had irreversibly changed their life. **DISCUSSION/SIGNIFICANCE:** VAD caregiver-patient dyads differ in their levels of caregiver burden. Burden experiences and resilience mechanisms may inform future interventions to reduce caregiver burden in diverse VAD dyads. Knowledge of the caregiver experience and factors contributing to burden can inform the healthcare team in providing essential caregiver support.

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### Development and Validation of a Survey Measuring Over-the-counter Medication Protection Motivation

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**OBJECTIVES/GOALS:** A major barrier to older adult (65+) over-the-counter (OTC) safety is the lack of actionable research on factors affecting older adult decisions during OTC selection. This goal of this study is to develop and validate a survey instrument based on the Protection Motivation Theory to measure older adults perceived risk of OTCs. **METHODS/STUDY POPULATION:** The 24-item OTC Protection Motivation survey underwent revision using a consult from the UW Survey Center as well as rigorous cognitive interviewing and pilot testing with 8 older adults. It was administered to 103 community-dwelling older adults. OTC misuse data was gathered from 15 of the participants. OTC misuse evaluated by three pharmacy experts on the basis of OTC appropriateness given participants age, existing conditions, concurrent medication use, and intention to adhere to label guidelines. Multivariate linear regression was used to examine the relationship between OTC misuse and protection motivation. Exploratory factor analysis (EFA) was used to determine a model of best fit to describe the factor structure of the OTC Protection Motivation survey. **RESULTS/ANTICIPATED RESULTS:** The EFA yielded a 5-factor model of protection motivation, which included the components of deliberative risk perception, a combination of experiential and affective risk perception, threat severity, protective behavior intent, and perceived efficacy in protective behavior engagement. The EFA-based item reduction resulted in a final 18-item OTC Protection Motivation survey. **DISCUSSION/SIGNIFICANCE:** Older adults, who have the lowest health literacy levels, are responsible for 30% of OTC medication use