study, the US national transplant registry was queried for all match runs of adult candidates listed for isolated heart transplantation between 2007-2017. We examined center acceptance rates for heart allografts offered to the highest-priority candidates and accounted for covariates in multivariable logistic regression. Competing risks analysis was performed to assess the relationship between center acceptance rate and waitlist mortality. Post-transplantation outcomes (patient survival and graft failure) between candidates who accepted their first-rank offers vs those who accepted previously declined offers were compared using Fine-Gray subdistribution hazards model. RESULTS/ANTICIPATED RESULTS: Among 19,703 unique organ offers, 6,302 (32%) were accepted for first-ranked candidates. After adjustment for donor, recipient, and geographic covariates, transplant centers varied markedly in acceptance rates (12%-62%) of offers made to first-ranked candidates. Lowest acceptance rate centers (<25%) associated with highest cumulative incidence of waitlist mortality. For every 10% increase in adjusted center acceptance rate, waitlist mortality risk decreased by 27% (SHR 0.73, 95% CI 0.67-0.80). No significant difference was observed in 5-year adjusted post-Tx survival and graft failure between hearts accepted at the first-rank vs lower-rank positions. DISCUSSION/SIGNIFICANCE OF IMPACT: Wide variability in heart acceptance rates exists among centers, with candidates listed at low acceptance rate centers more likely to die waiting. Similar post-Tx survival suggests previously declined allografts function as well as those accepted at first offer. Center-level decision is a modifiable behavior associated with waitlist mortality.

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Identifying Educational Needs of Researchers and Health System and Health Agency Leaders in the Science of Implementation and Improvement: Report from California CTSAs

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OBJECTIVES/GOALS: We conducted interviews with investigators, clinicians, and health system and health agency leaders to assess regional educational needs in implementation and improvement science, including content (knowledge and skill), format, experiential learning, and mentoring, to identify barriers and guide planning. METHODS/STUDY POPULATION: Five CTSAs in the University of California Biomedical Research Acceleration, Integration, & Development consortium (UC BRAID) plus a fifth affiliated CTSA developed a common protocol and interviewed 31 California-based learners (current fellows, early and mid-career investigators, clinicians, and health agency personnel) and system leaders from health care and health agencies. Interviews focused on impact goals, educational needs in dissemination, implementation, and improvement (DII) science, challenges in DII research, preferred learning formats, desired proficiencies and skills, and barriers such as cost, time, awareness, terminology, and suitability and availability of training. A rapid review of literature identified potential domains of knowledge and skills for a proposed curriculum. RESULTS/ANTICIPATED RESULTS: Areas of emphasis varied among interviewees; identified learning needs differed between traditional research perspectives (emphasizing areas such as partner engagement, grant writing, frameworks, study design) and applied perspectives (emphasizing areas such as managing change, complex systems, learning system capacity). Learners had a range of preferences; most interviewees desired formats that are longitudinal, experiential, applied, cooperative, and affordable. Variation in knowledge of, and interpretations of, DII terms and goals limited the ability of some interviewees to specify educational needs. A synthesis reveals areas for potential future co-development and networked approaches to regional training and capacity enhancement. DISCUSSION/SIGNIFICANCE OF IMPACT: In response to a rapidly changing health landscape, our academic health systems are developing capabilities to improve care for their populations. Our work informs the training and education needs that are critical to translation at a system-wide level. Regional convenings can raise awareness while translational programs fill educational gaps.

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Identifying Environmental Barriers to Participation for Community-Dwelling Adults with Stroke: A Descriptive Pilot Study

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OBJECTIVES/GOALS: The purpose of this study is to identify and quantitatively describe environmental barriers to community engagement and activity participation for adults with stroke and low income. Repeated electronic surveys collected in real time will reduce recall bias and improve characterization of barriers. METHODS/STUDY POPULATION: 20-30 community-dwelling adults with stroke and low income will be recruited for this pilot study. Inclusion criteria: > 1 month post stroke and evidence that they have the vision, literacy, and cognitive capacities to answer survey questions on a smart device. Exclusion criteria: severe aphasia, severe mental illness or substance abuse within 3 months, and ataxia. Participants will complete standardized assessments of daily activities, engagement in and perceptions about community activities, social support, and perceived environmental barriers. Participants then complete four surveys per day for 14 days using an app on an iPod Touch, reporting activities attempted and barriers encountered. RESULTS/ANTICIPATED RESULTS: This is the first study of this kind and is a work in progress. We anticipate that the environmental barriers reported will include physical (e.g. built structures, climate, and natural terrain), social (e.g. support or lack thereof; stigma), political (e.g. access to transportation; healthcare services), and technological barriers (e.g. difficulties with personal equipment and/or technologies such as elevators, ticket kiosks, etc.). DISCUSSION/SIGNIFICANCE OF IMPACT: An increased understanding of the barriers facing community-dwelling adults with stroke and low income will facilitate the development of culturally-appropriate and more accessible self-management programs to help this population re-engage in their communities and return to pre-stroke activities.