that it applies to many other aspects of the CHW role" and "I feel more empowered in my role after hearing explicitly the opportunities . . . for a CHW to be more involved in the research process". UM has partnered with stakeholders in FL, Texas, southern California and Tennessee to develop a Spanish version of the PCOR for CHWs Training Toolkit (including a slide deck, Facilitator's Guide and Student Workbook) that can be culturally and linguistically appropriate, to train local CHWs/promotores as PCOR CHW Champions. Attendees will receive lunch and a certificate of participation upon completion of the module. In turn, they agree to train local CHWs in their region. These 7 credit hrs could be used as credits towards state certification requirements, in states with CHW certification programs. This partnership for the mobilization and engagement of CHWs/promotores aims to strengthen their capacity to be involved in PCOR at the local and national level and increase the organizational capacity of CHW representative organizations in their promotion of PCOR. This type of research aims to help patients and those who care for them make better-informed decisions about the healthcare choices they face every day, guided by those who will use that information. In doing so, CHWs/promotores are contributing to PCOR in addressing health disparities and achieving health equity as a more culturally and linguistically diverse healthcare workforce and PCOR research team members.

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Readability, Understandability, and Actionability of Inpatient Discharge Instructions: A Health Literacy Perspective

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OBJECTIVES/SPECIFIC AIMS: Parents often make errors in comprehending and executing their child's inpatient discharge instructions, putting their child at risk for adverse post-discharge outcomes. Suboptimal provider-caregiver communication has been linked to errors in comprehension and execution of provider instructions, especially for parents with limited health literacy. Few studies have systematically examined features of pediatric inpatient written discharge instructions that may contribute to errors. Our objective was to assess the readability, understandability, and actionability of pediatric inpatient written discharge instructions. METHODS/STUDY POPULATION: This was a cross-sectional analysis of the written discharge instructions (standardized template, content not standardized) provided to parents at an urban public hospital, enrolled as part of a prospective cohort study (n=171) focused on parent ability to comprehend their child's discharge instructions. Inclusion criteria were: English/Spanish-speaking parents of children ≤12 years old discharged on ≥1 daily medicine. Discharge instructions were assessed for: 1) Readability (Average of 5 formulas [Flesh Reading Ease, Flesch-Kincaid, Gunning Fog, Simple Measure of Gobbledygook, Forcast]), 2) Understandability and actionability (AHRQ Patient Education Materials Assessment Tool [2 independent reviewers; κ>0.8 for both]). RESULTS/ANTICIPATED RESULTS: Mean (SD) reading grade level was 11.4 (0.7); none of the instructions were written at a recommended reading level of 6th to 8th grade or below. Mean (SD) understandability was 37.7 (6.9)%; mean actionability was 41.7 (8.4)%. All 171 sets of instructions used medical

terminology without adequate plain language explanations and included information that was not relevant to the child's diagnosis and associated care (e.g., obesity counseling, smoking cessation given to a child with appendicitis). None of the sets of instructions presented information in a logical sequence (e.g., diet instructions in more than one location) or included any pictographic information or other visual aids to support the text (e.g., diagram of medication dose within a dosing tool). DISCUSSION/SIGNIFICANCE OF IMPACT: Written discharge instructions provided in the pediatric inpatient setting were suboptimal. Use of a systematic approach to improve discharge instructions, using a health literacy perspective, has the potential to improve post-discharge outcomes in children.

3418

Service referral follow up rate among participants of a community engagement initiative in Florida

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OBJECTIVES/SPECIFIC AIMS: To examine the rate of medical and social service referral utilization among community members who are enrolled in HealthStreet - a community engagement initiative at University of Florida. METHODS/STUDY POPULATION: HealthStreet utilizes the CHW model to conduct health needs assessment, provide referrals to medical and social services and link them to health research at UF. Across two follow-up schedules, these participants are contacted to assess their rate of referral utilization. RESULTS/ANTICIPATED RESULTS: From October 2011-October 2018, HealthStreet completed 10,829 health needs assessments and provided a total of 15,723 medical and/or social service referrals with an average of 1.48 referrals per person. About a third of people completed first and second follow-up respectively (n=3,461; 32.0% and n=3,477; 32.1%), and another third (n=3,891; 35.9%) completed neither. The total number of follow up attempts was 40,863, with an average of 3.85 attempts per person. The overall service utilization rate was 17.02%. The top barriers to utilization included, could not schedule an appointment (26.3%), busy on the date of appointment (21.9%), transportation (9.4%), and already received the service from elsewhere (4.7%). Others (28.3%) did not identify a specific barrier for non-utilization. DISCUSSION/SIGNIFICANCE OF IMPACT: Findings show that those who need services are still hampered by barriers to care that CHWs and other service providers could help them overcome. Facilitating the appointment and providing transportation would assist over a third of those needing services.

3021

Strengthening Translational Research Through Citizen Scientist Education

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OBJECTIVES/SPECIFIC AIMS: This project aimed to offer Citizen Scientists basic knowledge about clinical and translational research, as well as introductory information to the topics a Citizen Scientist may work with at the University of Florida (UF). As part of that goal,

several objectives were identified: (1) create a curriculum to operationalize training for new Citizen Scientists, (2) utilize best practices in educational research for curriculum design and implementation, (3) create a resource that can be freely available to other groups, and (4) implement the finished curriculum with Citizen Scientists at UF. METHODS/STUDY POPULATION: Working with an expert in the field of instructional design, an overall design plan was created and implemented. This included first conducting interviews with Citizen Scientists to determine the most appropriate format for the content, creating 10-minute videos with subject matter experts, and crafting learning assessments for each didactic video. Topics for the curriculum were conceptualized by gathering input from CTSI leaders, Citizen Scientists, and staff members, and learning objectives were created to help guide the content creation. The ADDIE (Analysis, Design, Development, Implementation, Evaluation) instructional design model was utilized to help guide the creation process, and this included a formative evaluation of the content, where assessment questions or videos were edited in response to Citizen Scientist feedback. It was important to both CTSI leadership and the Citizen Scientists themselves that the curriculum be widely accessible, so the curriculum was made as an open educational resource, meaning that it is available online for use by anyone with content that can be customized to specific programs or organizations. To implement the curriculum with UF Citizen Scientists, the materials were ported into Canvas, a widely utilized learning management system at UF. Participants were split into two groups, one group with Citizen Scientists already in the program (n=6) and a group with new Citizen Scientists (n=2). IRB approval to conduct this pilot test and share the results was obtained, and implementation ran from July 2017- January 2018. RESULTS/ANTICIPATED RESULTS: Data were taken from participant scores on the curriculum's 15 didactic learning assessments, and while the number of attempts on assessments was not limited, only first-attempt results were analyzed. Veteran Citizen Scientists scored higher than the new Citizen Scientists, with an overall score across all assessments of 84% vs 74%. The existing Citizen Scientists performed better on most topics, however the newer Citizen Scientists outscored the veterans on two modules: Cultural Competency (90% vs 77%) and Biomedical Informatics and Big Data (80% vs 73%). The newer members also had fewer retakes on these two modules, with the newer members having only one retake for these two modules, compared to seven total retakes across both modules for the established members. Participants were also asked basic questions about learning comprehension, video quality, and assessment item clarity, in addition to offering narrative feedback. Participants across both groups seemed largely pleased with the curriculum, as indicated by results of the course evaluation. Most (75%) Citizen Scientists felt it was easy to understand the information in the video tutorials, while 75% of Citizen Scientists felt that the assessment items were comprehensive, and 62.50% felt that the assessment items matched the learning objectives. The new Citizen Scientists were far more likely to respond favorably to the video and assessment evaluation questions, with 95% of all responses marked as "agree" or "strongly agree", compared to 57% of the responses from the established Citizen Scientists. DISCUSSION/SIGNIFICANCE OF IMPACT: The performance of new vs veteran Citizen Scientists underscores the need for introductory information on clinical research topics for new community stakeholders, as well as the need for ongoing refresher training. Though the existing Citizen Scientists had been working with these topics already, and some had experienced the modules already through the formative evaluation, some topics remained a challenge for participants, a notion reflected in their assessment scores. Clinical research, particularly translational research, can be difficult to understand, and when a stakeholder understands the fundamentals underlying the research with which they are assisting, communication barriers are eliminated, feedback is well-reasoned and actionable, and there is greater buy-in from stakeholders. Understanding the clinical research process helps community stakeholders better understand their contribution to research and offer critical feedback to aid in implementation of research findings in health-related settings.

Tapping into Community Insight and Lived Experience to Inform, Guide and Direct Translational Science Initiatives

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OBJECTIVES/SPECIFIC AIMS: This study aims to describe adaptability in methods used to apply community input to programming within the field of translational science. The outcomes of community informed programming include opportunities for innovative projects and approaches, and better responsiveness to community needs. It is anticipated that this will result in greater community involvement in research, moving towards greater health equity. METHODS/STUDY POPULATION: The SC CTSI is situated in urban Los Angeles, one of the most diverse communities in the world. Eight SC CTSI Community Engagement Core initiatives that employ community partnership are illustrated. The activities include social marketing campaigns for cervical cancer prevention; use of community-embedded research ambassadors to increase scientific literacy in Latino and Black/African-American communities; use of innovative technologies to educate pediatric patients and families about clinical research; working with the entertainment industry to promote clinical research in popular television shows; a community advisory board that is tailored and embedded in each CSTA core group; a community based research dissemination program; an ad-hoc community advisory group assembled to adapt a research 101 curriculum for Black/African-American communities; and a series of listening sessions conducted throughout Los Angeles. RESULTS/ANTICIPATED RESULTS: Integration of community voices provide direction for future planning, programming and execution of all referenced initiatives. Ultimately, the goal for these discussions with community members is to develop innovative approaches to CTSA programming. DISCUSSION/SIGNIFICANCE OF IMPACT: Racial and ethnic minorities continue to experience underrepresentation in clinical research trials. CTSAs have been tasked with addressing barriers that have historically led to disparities in research participation, and by extension, the effectiveness of medical interventions in diverse populations. Community input is an invaluable source for knowledge and innovative ideas in how to increase involvement in various aspects of the research process, including dissemination, recruitment and enrollment in clinical trials. CTSAs have increasingly augmented Community Engagement programs within their respective cores to address population disparities. The approaches used to engage communities require an element of fluidity and flexibility, and a reliance on the input of community members, in order to maintain relevant and desired community engagement practices.