

a source of connectivity post program. RESULTS/ANTICIPATED RESULTS: The participants were elders who did not have computer/digital knowledge and/or access to the digital world. Mid-intervention data show that 9/9 used the tablets, learned basic skills and felt more comfortable/confident using a digital device. 5/9 participants used their hotspots and the remaining learned to use Wi-Fi provided by the facility they live in. While at baseline only 1/9 participants had attempted to use patient portals, mid-intervention data showed that 8/9 accessed portals. Importantly, the participants are also using other digital functions essential to their well-being including streaming, shopping, bill paying, and communicating with loved ones. Preliminary post-surveys suggest that all participants now rate their internet literacy and web searching skills at an acceptable/good level. DISCUSSION/SIGNIFICANCE: Tailored support and access to technology led to uptake of digital technology among elders, enabling them to access health-related resources and other web activities which improved their quality of life and led to digital equity. This project can be leveraged to obtain funding to train trusted members of the community as digital literacy ambassadors.

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Adapting Motivational Interviewing for Vaccine Hesitancy in Underserved Communities

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OBJECTIVES/GOALS: To adapt and evaluate motivational interviewing (MI) as a tool for better understanding the beliefs that underlie vaccine hesitancy and effectively respond to these beliefs with emphasis on reaching underserved communities disproportionately impacted by COVID-19. METHODS/STUDY POPULATION: Our group reviewed the principals for motivational interviewing, rationale for vaccination, and likely beliefs underlying hesitancy and developed a guide for MI to address vaccine hesitancy. We recruited lay members of Black and Hispanic communities in Washington, DC and Baltimore, MD. 90-minute zoom facilitator training sessions included didactic material, questions and discussion, and role playing. We were not successful recruiting unvaccinated individuals to provide written consent to be followed re vaccination status. Facilitators indicated incorporating MI in their job-related and informal interactions. Surveys were developed to obtain feedback regarding beliefs underlying hesitancy, perceptions of MI effectiveness, and more recently (Oct 2022), evolving concerns regarding the pandemic. RESULTS/ANTICIPATED RESULTS: 67% of facilitators were Black, their average age was 39 years, and 67% had at least a high school education. All had received a COVID-19 vaccination. 82% endorsed utilizing MI in discussions receiving the COVID-19 vaccine. 46% of the facilitators endorsed that MI was moderately effective (46%) in clarifying objections and very effective (50%) in persuading friends, family, and co-workers to consider getting vaccinated. The most common elicited objections to the vaccine were side-effects (21%) and beliefs in government conspiracies (21%). In the second survey respondents indicated receiving another booster followed by getting their children vaccinated as the most common identified concerns. DISCUSSION/SIGNIFICANCE: MI can be adapted to address vaccine hesitancy in underserved minority groups and appears promising for identifying beliefs underlying hesitancy and possibly for increasing vaccination rates among these communities.

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Addressing Institutional and Community barriers to Development and Implementation of Community-engaged Research through Competency-based Academic and Community Training

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OBJECTIVES/GOALS: CEnR plays a crucial role in rapidly translating science to improve health by bridging gaps between research and practice although skills development is critical to enable successful community/academic partnerships. We have developed a curriculum mapped to CEnR domains and competencies that meets the needs of community partners and investigators. METHODS/STUDY POPULATION: We located three comprehensive efforts to identify CEnR domains and competencies that we aligned to develop our curriculum, which we then mapped to these competencies. The first was undertaken by a NCATS Joint Workgroup which identified curricula, resources, tools, strategies, and models for innovative training programs. Using Competency Mapping, they developed a framework for curriculum mapping that included eight domains, each with two to five competencies of knowledge, attitudes, and skills. The second aligned CEnR competencies with online training resources across the CTSA consortium, while the third focused on Dissemination and Implementation training. Informed by a conceptual model to advance health equity, we adapted and integrated these frameworks into a set of six educational modules. RESULTS/ANTICIPATED RESULTS: Although many CEnR training programs have been developed, few curricula are mapped to identified domains and competencies, and fewer still address institutional and community barriers to effective CEnR training. However, many outstanding curricula effectively address these competencies, and our curriculum draws from and builds upon these programs of excellence, including those from our sister CTSA hubs. Our modules serve our local community by educating and empowering faculty, students, and community partners. To date, no CEnR curriculum has been implemented at our institution that meets the needs of all parties who play a significant role in community-engaged research (e.g., IRB members, investigators, and community-based partners). This curriculum thus fills an important gap in our workforce training. DISCUSSION/SIGNIFICANCE: This educational program is designed to educate and empower investigators, trainees, students, and community partners to engage in effective CEnR that promotes community projects and fosters relationships and trust. Following evaluation, we will offer the curriculum for use by others interested in using or adapting it for their own programming.

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An Assessment of Gender-Affirming Language within Patient Encounter Notes

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OBJECTIVES/GOALS: Transgender, non-binary, and gender expansive (TGE) patients experience significant barriers to high-quality care including limited provider expertise and pathologization within health documentation. This study aimed to evaluate the use of gender-

affirming language within free text medical notes of TGE patients. **METHODS/STUDY POPULATION:** We conducted a qualitative analysis of free text medical notes in adult (> age 18 years) TGE patients seen in inpatient and outpatient medicine and general surgery clinics between January 2019 and January 2022 at three independent health systems in San Francisco. TGE patients were identified based on self-identified gender identity, sex assignment at birth, and legal sex. We conducted a thematic analysis to assess use of gender-affirming language, including self-identified pronouns, chosen names, gendered and gender-neutral descriptors, sex-related traits, and pathologizing language. **RESULTS/ANTICIPATED RESULTS:** Within pilot data, we found inconsistent use of gender-affirming language within notes, with pronounced variability within the history of present illness, the clinical one liner, and the problem list. Within one liners, many did not include patient-identified pronouns (81%), omitted chosen names (53%), and utilized gendered language that was misaligned with patient self-identified gender identity (27%) - frequently including the use of outdated terms i.e. female-to-male and transsexual. Many problem lists included gender-related care, with some describing hormonal and surgical interventions and others utilizing language to pathologize transgender status. **DISCUSSION/SIGNIFICANCE:** Our study identifies gaps in the use of gender-affirming language in medical notes. Of particular significance in the era of open notes wherein patients can view their medical records, our study offers a framework for assessing and increasing gender-affirming language use within free text medical notes that can be applied across health systems.

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Approaches to disseminating a community engagement tool through capacity building

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OBJECTIVES/GOALS: Despite the importance of stakeholder engagement in research, there remains a critical need for methods that facilitate the engagement of diverse stakeholders throughout the research process. We describe dissemination and capacity building for the SEED Method, which was created to involve stakeholders in the research development process. **METHODS/STUDY POPULATION:** In order to raise greater awareness of the SEED Method and to build capacity among research teams, we received funding from the Patient-Centered Outcomes Research Institute (PCORI) for a 2-year project to implement a plan of outreach, training, interactive learning, and technical assistance, as well as an innovative partnership with the Extension Foundation. Tools created for this project include an internet site providing tools and materials, live and on-demand webinars, training videos, SEED materials, a blog, and an interactive course/toolkit. In addition, we created a monthly learning collaborative and provided direct technical assistance to teams using the SEED Method in their research engagement projects. We evaluated user satisfaction with the tools and support provided through online surveys. **RESULTS/ANTICIPATED RESULTS:** We highlight the routes to reaching potential users and diverse approaches to capacity building, including multimedia training materials, interactive learning sessions, and customized technical assistance. As a result of outreach and capacity building, there are currently 13 research teams using the SEED Method to engage stakeholders in research development across various topics. We link this result to the dissemination and capacity building strategies utilized and the paths through which teams learned about the SEED Method. We also look at how the teams are using the method in terms of project

goals and approaches to adapting the SEED Toolkit. **DISCUSSION/SIGNIFICANCE:** The use of PHR continues to increase, and with it the emergence of new approaches to involve patients, stakeholders, and communities. Innovations in engagement need to reach potential users and build capacity among researchers and communities.

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Association Between Structural Racism and Acuity of Illness at Initial Presentation in Pediatric Patients with Solid Tumors*

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OBJECTIVES/GOALS: Racial/ethnic minoritized children experience poorer cancer outcomes, which may be driven by structural racism. We apply an index that combines segregation and neighborhood vulnerability to a pediatric oncology population and assesses its association with acuity of illness at initial presentation. **METHODS/STUDY POPULATION:** A retrospective analysis will be performed in a cohort of pediatric patients diagnosed with solid tumors at Children's Healthcare of Atlanta (CHOA) from 2010-2018 (N=1149). The sample will be linked to a structural racism index (SRI) that has been established in our prior work. We abstract data from medical records to quantify initial acuity of illness based on the need for ICU-level resources. Differences in socio-demographic characteristics will be analyzed by the SRI, using chi-squared, Student t-tests, and ANOVA where appropriate. Logistic regression models will be used to assess the association of the SRI with acuity of illness. **RESULTS/ANTICIPATED RESULTS:** We anticipate that relevant sociodemographic characteristics (e.g., race/ethnicity, insurance status) differ by the SRI. The CHOA Cancer Registry includes a racially and ethnically diverse group of patients: 63% of the cohort is White, 30% is Black, 10% are Other, and 15% are Hispanic/Latino. Furthermore, we anticipate that pediatric patients with solid tumors living in counties with greater levels of structural racism as measured by the SRI experience an increased acuity of illness at initial presentation. **DISCUSSION/SIGNIFICANCE:** By applying a novel index quantifying structural racism, we will provide new information about the structural barriers patients and families face prior to a pediatric cancer diagnosis. This work will allow us to identify areas for potential interventions in this vulnerable young patient population.

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Associations Between County Level Poverty and Firearm Injuries in the State of Maryland

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OBJECTIVES/GOALS: The United States is experiencing an epidemic of firearm deaths and injuries. Poverty and other socioeconomic factors have been linked to firearm injuries on the national level. The goal of this study is to examine the relationship between county level poverty and firearm injuries in the State of Maryland. **METHODS/STUDY POPULATION:** This is a cross sectional study assessing fatal and non-fatal firearm injuries of all ages between 2018-2020 utilizing data from the State of Maryland's Health Services Cost Review Commission. Our primary analysis will involve calculating injury and mortality rates to assess if fatal and non-fatal