

nomenclature in the clinical space. METHODS/STUDY POPULATION: Using clinicaltrials.gov, inclusion/exclusion criteria was recorded for PrEP interventional trials (i.e., Truvada, Descovy). To evaluate these trials, an assessment scale for “gender literacy” is necessary. This scale relies on the fact that sex and gender are distinct elements to one’s identity and ought to be reported as such. As a form of content analysis, where literary information (eligibility criteria) is evaluated based on set rubric, this scale will require validation through inter-coder agreement. Evaluated in a group of 5 college-age students, this scale was used on selected PrEP clinical trials to verify if there was high agreement in the scores given. After validation, the dataset from clinicaltrials.gov underwent evaluation using the proposed assessment scale for gender literacy. RESULTS/ANTICIPATED RESULTS: The student coders had a Kalpa of 0.4 in the first round of grading. After retraining, their Kalpa increased to 0.68. The grading involved a subjective language rating (LIR), evaluating the usage of inclusive language, and a numerical score (GR) for the demographics of inclusion in a trial. After this inter-coder agreement validation, 216 active PrEP clinical trials (as of March 2023) were downloaded from clinicaltrials.gov. Grading of these trials showed that cisgender males represented 40% of participants, while 28% represented both transgender men and women, and less than 1% represented non-binary individuals. Moreover, more than half of the trials (52%) exhibited cisgender-oriented language or made no reference to gender identity. DISCUSSION/SIGNIFICANCE: It is a scientific imperative for clinical trials to have representative participant bases in order to derive data that is generalizable to afflicted populations. Especially for PrEP clinical trials, where gender-diverse individuals need visibility, trial design must be carefully crafted so as not to exclude through dated or exclusionary language.

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### Transforming Health Equity with an Innovative Social Determinants of Health Platform: Application of HOUSES Index to Colorectal Cancer Screening

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OBJECTIVES/GOALS: To tackle population-level health disparities, quality dashboards can leverage individual socioeconomic status (SES) measures, which are not always readily accessible. This study aimed to assess the feasibility of a population health management strategy for colorectal cancer (CRC) screening rates using the HOUSES index and heatmap analysis. METHODS/STUDY POPULATION: We applied the 2019 Minnesota Community Measurement data for optimal CRC screening to eligible Mayo Clinic Midwest panel patients. SES was defined by HOUSES index, a validated SES measure based on publicly available property data for

the U.S. population. We first assessed the association of suboptimal CRC screening rate with HOUSES index adjusting for age, sex, race/ethnicity, comorbidity, and Zip-code level deprivation by using a mixed effects logistic regression model. We then assessed changes in ranking for performance of individual clinics (i.e., % of patients with optimal CRC screening rate) before and after adjusting for HOUSES index. Geographical hotspots of high proportions of low SES AND high proportions of suboptimal CRC screening were superimposed to identify target population for outreach. RESULTS/ANTICIPATED RESULTS: A total of 58,382 adults from 41 clinics were eligible for CRC screening assessment in 2019 (53% Female). Patients with lower SES defined by HOUSES quartile 1-3 have significantly lower CRC screening compared to those with highest SES (HOUSES quartile 4) (adj. OR [95% CI]: 0.52 [0.50-0.56] for Q1, 0.66 [0.62-0.70] for Q2, and 0.81 [0.76-0.85] for Q3). Ranking of 26 out of 41 (63%) clinics went down after adjusting for HOUSES index suggesting disproportionately higher proportion of underserved patients with suboptimal CRC screening. We were able to successfully identify hotspots of suboptimal CRC (area with greater than 130% of expected value) and overlay with higher proportion of underserved population (HOUSES Q1), which can be used for data-driven targeted interventions such as mobile health clinics. DISCUSSION/SIGNIFICANCE: HOUSES index and associated heatmap analysis can contribute to advancing health equity. This approach can aid health care organizations in meeting the newly established standards by The Joint Commission, which have elevated health equity to a national safety priority.

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### A pragmatic approach to portable neuroimaging utilized in clinical research

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OBJECTIVES/GOALS: The aim of this paper is to raise awareness of the limitations of the current pMRI training paradigm and to recommend a standardization of skills to expand diversity among field-based neuroimaging technicians. METHODS/STUDY POPULATION: Currently, there are seven international brain research initiatives. The goal is to establish and understand the cultural values a society holds and how the outcomes of research may be adopted into societal practice. We must also consider the benefits of early detection amongst minoritized communities in neuroscience research. Neuroimaging in remote settings can allow patients to advocate more accurately for timely medical care which can lead to better health outcomes. According to the Journal of Neurological Sciences, neuroscience accounts for 9% of total medical publications. RESULTS/ANTICIPATED RESULTS: Neuroimaging research continues to evolve in terms of resolution and portability. T By harnessing diverse data, we are able to utilize advanced neuroimaging techniques and software technology to recognize trends amongst subgroups of individuals who were previously considered geographically inaccessible. DISCUSSION/SIGNIFICANCE: Despite the excitement and promise of portable neuroimaging devices, there is a fundamental need to establish standardized training procedures that can be accessed by individuals of all socioeconomic backgrounds.