Demographic disparities in proximity to stroke care in the United States*  
Cathy Y. Yu, Timothy Blaine, Peter Panagos and Akash P. Kansagra  
Washington University School of Medicine

ABSTRACT IMPACT: Given the association between lower time to treatment and better clinical outcomes in stroke patients, identifying factors correlated with reduced proximity and thus greater time to stroke care can aid efforts to reduce disparities in stroke outcomes. OBJECTIVES/GOALS: The objective of this study is to quantify the relationship between distance to the nearest certified stroke hospital and census-derived demographics of age, race/ethnicity, income, and insurance status. METHODS/STUDY POPULATION: This is a cross-sectional study. Population data for all census tracts in the contiguous United States were obtained from the US Census Bureau’s 2014-2018 American Community Survey. Stroke hospitals were identified from national or state level certification databases and were required to offer at least IV tPA. The main outcome is driving distance in kilometers from each census tract to the nearest certified stroke center, which was calculated using OSMnx, a Python package to retrieve, model and analyze real-world street networks. Quantile regression analysis was used to compare relationships between distances and tract-level demographics of age, race/ethnicity, income, and insurance status. RESULTS/ANTICIPATED RESULTS: 2,423 stroke centers and 71,929 census tracts containing 316,995,649 individuals were included. 49,918 (69%) tracts were urban. Demographic disparities in proximity to certified stroke care were greater in non-urban tracts compared to urban tracts. Higher median income was associated with decreased median distance in non-urban census tracts and greater median distance in urban census tracts. DISCUSSION/SIGNIFICANCE OF FINDINGS: Reduced proximity to stroke care exists in areas with greater representation of elderly, American Indian, or uninsured persons; and low median income. These disparities are magnified in non-urban settings. Such knowledge can aid efforts to address and reduce disparities in stroke outcomes.

Evaluation

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Assessing Sexual Health Services at a public university in the Deep South  
Andres Camino, Meghan Whitfield and Nicholas Van Wagener  
University of Alabama at Birmingham School of Medicine

ABSTRACT IMPACT: Our work helps show universities that embedding dedicated sexual health clinics within university health and wellness clinics may expand the amount of students they see for sexual health screenings during a time of increased sexual behavior and exploration. OBJECTIVES/GOALS: The National College Health Association reports that college students have frequent, consensual sex. Student health and wellness clinics (SHWC) offer sexual health services, but few have dedicated sexual health clinics (SHC). We evaluated sexual health service use at a university SHWC after implementation of a dedicated SHC two half-days per week. METHODS/STUDY POPULATION: This was a retrospective analysis of data collected from patients receiving sexual health screening at the University of Alabama at Birmingham (UAB) SHWC between January 2015 and June 2019. Demographic variables, sexual behaviors, reason for testing, and rates of STIs were extracted from the electronic medical record and were compared by clinic (SHC vs. SHWC). Data on screening visits of patients over 18 were included in the final analysis. Variables were summarized with frequencies and percentages. Univariate models were fit, and multi-variable models will be fit, selecting variables with p values of 0.1 or less. Odds ratios with corresponding 95% confidence intervals for univariable analysis are presented. The study was approved by the UAB Institutional Review Board. RESULTS/ANTICIPATED RESULTS: A total of 5025 STI screenings were performed. Males (OR 4.13; 3.61-4.72), undergraduates (OR 1.33; 1.15-1.54), and persons reporting sex with the same sex (OR 1.88; 1.56-2.28) were significantly more likely to seek care at the SHC. Students with symptoms were more likely to seek care at the SHWC (OR 0.53; 0.47-0.61), while persons who reported contact with STIs were more likely to seek care at the SHC (OR 2.88; 2.22-3.74). The overall percentage of positive screenings was 9.3% for chlamydia (CT), 3.0% for gonorrhea (GC), 0.8% for trichomoniasis (TV), 0.7% for syphilis, and 0.3% for HIV with higher percentages of positive for CT (OR 1.60; 1.30-1.96) and GC (OR 2.02; 1.44-2.85) in the SHC. A greater percentage of positives for TV (OR 0.37; 0.14-0.96) was found in the SHWC. DISCUSSION/SIGNIFICANCE OF FINDINGS: Based on demographics of persons utilizing services, embedding a dedicated SHC within a university SHWC may expand populations reached for STI screening. With higher percentages of patients testing positive for CT and GC, a SHC may allow for greater diagnosis and treatment of STIs in general screening and persons presenting as contacts.