Comparison of Healthcare Service Utilization By Language and Refugee Status

Student Researcher: Megan Elizabeth Brown, MS4

Mentor: Kristine Knuti Rodrigues, MD, MPH

I. Abstract

Introduction: Non-English Non-Spanish (NENS)-speaking immigrant and refugee populations, unique in their cultures, languages, backgrounds, and health concerns, experience specific healthcare needs and disparities that place unique demands on the current Coloradan healthcare systems.[3-6,11-14,16-23,28,34,36,41,44,47,52,54] Previous studies have explored the health disparities of refugees in comparison to immigrant or United States (U.S.)-born populations.[27] A few have also compared English-speaking, Spanish-speaking, and NENS-speaking populations[20-21,23,32,50-51]; however, less is known about healthcare utilization for specific NENS[1]-speaking, refugee and immigrant populations.

Methods: To explore emergency department and urgent care utilization as well as inpatient hospitalizations by language and refugee status, we performed a retrospective observational cohort study of patients, ages 0-99 years, seen in the Denver Health Emergency Department, one of Denver Health's urgent cares, or hospitalized at Denver Health in 2019. Using administrative data, we collected demographic and clinical characteristics, including gender, age, insurance and employment status, years followed in the Denver Health system, medical complexity, preferred language, refugee status, and race/ethnicity, and also determined how many emergency department or urgent care visits (calculated together as acute care visits)[2] and hospitalizations each patient had in 2019. We then performed univariate and multivariate logistic regression analysis comparing acute care utilization and hospitalization by preferred language, language group, and refugee status.[3]

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[1] NENS; included the following languages in this study: Amharic, Arabic, French, Nepali, Other[d], Russian, Sign Language, Somali, Tigrinya, Vietnamese
[2] Denver Health utilizes a triage system for acute care visits where, upon entering the hospital for acute care, patients are triaged to either the Urgent Care or Emergency Department depending on their acuity level
[3] Refugee status determined by whether or not patient received refugee screening at the Denver Health Refugee Clinic

Results: 81,462 patients seen in the emergency department, urgent care, and hospitalized at Denver Health were included in the study sample. Patients' preferred languages were 80.5% English *(n = 65,577)*, 16.4% Spanish *(n = 13,337)*, and 3.1% NENS *(n = 2,548)*. Of the patients in the sample, 0.2% *(n = 133)* were classified as refugees, which was fewer than expected. Compared to English speakers, Nepali- *(adjusted OR 0.4, 95% CI [0.2-0.9])*, Somali- *(adjusted OR 0.5, 95% CI [0.3-0.98])*, and Vietnamese-speaking patients *(adjusted OR 0.6, 95% CI [0.4-0.8])*, had lower odds of recurrent acute care visits. Spanish- and Vietnamese-speaking patients had higher odds of hospitalization compared to English speakers *(adjusted ORs 1.6, 95% CI [1.5-1.7] and 2.0, 95% CI [1.4-2.8] respectively)*. No difference was found for the other preferred languages compared to English for recurrent acute care visits or hospitalizations. When grouped together, the NENS language group had lower odds of having recurrent acute care visits *(adjusted OR 0.8, 95% CI [0.7-0.9])* compared to English speakers. There was no difference between NENS speakers and English speakers for hospitalizations. Refugees had lower odds of hospitalization compared to non-refugees (*adjusted OR 0.4, 95% CI [0.2-0.8])* but no difference was found for recurrent acute care visits.

Conclusions: Emergency department/urgent care utilization and hospitalizations vary by language and refugee status. Grouping languages together (e.g. all NENS or all limited English proficiency) can lead to missing the health disparities and healthcare needs of specific immigrant and refugee groups. More research is needed to explore these disparities to determine the specific needs of these populations in order to provide equitable healthcare.