

Analysis of a Pediatric Dental School Patient Population Revealed Increasing Trends of Limited English Proficiency (LEP) Patients

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BACKGROUND

- Recent studies in pediatric dental public health have focused on prevention efforts and improved educational initiatives among pediatric healthcare providers to facilitate these efforts.
- Compilation and analysis of demographic data have been successfully used to design and implement prevention strategies to reduce the burden of childhood caries in many lower socioeconomic status (SES) and underserved communities.

STUDY OBJECTIVE

- Based upon the lack of current information regarding the pediatric patient population at UNLV-SDM, the overall goal of this project will be to determine the demographic characteristics of this population (including sex, race/ethnicity and age), indicators for socioeconomic status (SES), such as enrollment in public assistance or safety net services including Medicaid and other barriers to healthcare access, such as additional (non-English non-Spanish) languages spoken.
- These data were compared over time to identify any relevant changes or trends that may help towards designing and implementing appropriate prevention strategies for pediatric oral health.

STUDY APPROVAL

- Institutional review board (IRB) protocol [1619329-1] “Retrospective analysis of Oral Health Status of Dental Population” was approved to evaluate the changes in demographics among the pediatric patient population over time.

DATA ANALYSIS

- Descriptive statistics (number and percentage) for demographic variables (sex, age, race/ethnicity, languages spoken) and SES indicators (Medicaid, CHIP enrollment) have been compiled. Analysis of any changes has been completed using Chi square analysis.

RESULTS

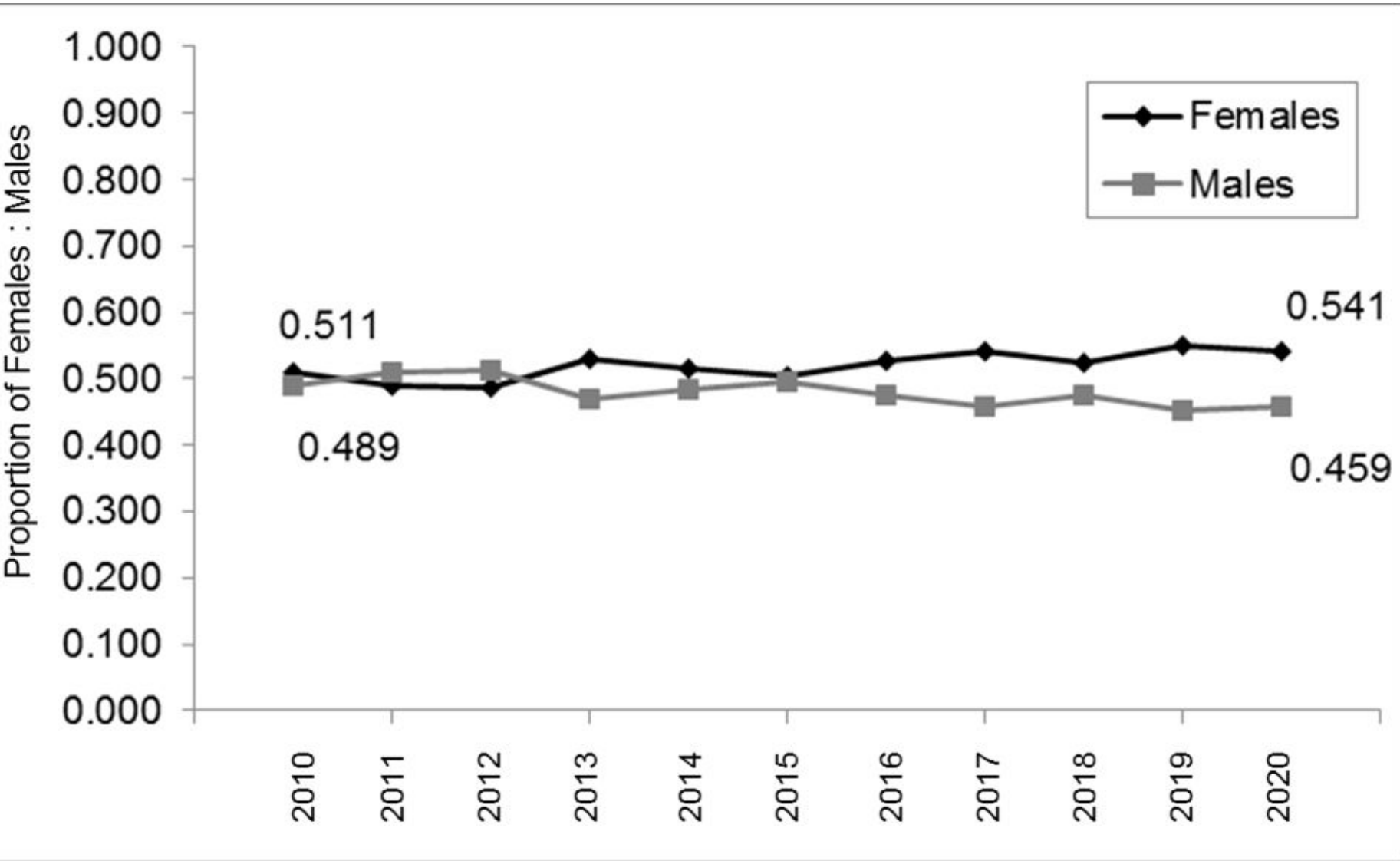


Figure 1. Proportion of males and females within the patient population over time. Plotting the proportion over time demonstrated relative stability among females (52%) and males (48%) between 2010 and 2020.

Table 1. Additional languages (not English or Spanish) spoken by patients and family has increased over time from a total of n=4 in 2010 to a total of n=21 in 2020 - mainly among Black or Asian patients.

Year	European language	African language	Asian language
2010 *SIGN (deaf)	Dutch (DUT) Slovenian (SLO)		Tagalog (TAG)
2015 *SIGN (deaf)	Armenian (ARM) Dutch (DUT) French (FRE) Portuguese (POR) Slovenian (SLO)	Arabic (ARA) Ethiopian (ETH)	Chinese (CHI) mand. Korean (KOR) Persian (PER) Tagalog (TAG)
2019-2020 *SIGN (deaf)	Albanian (ALB) Armenian (ARM) Dutch (DUT) French (FRE) Latvian (LAT) Portuguese (POR) Russian (RUS) Slovenian (SLO)	Afar (AFA) Afrikaans (AFR) Amharic(AMH) Arabic (ARA) Ethiopian (ETH)	Abkhazian (ABK) Chinese (CHI) mand. Dzongkha (DZO) Korean (KOR) Persian (PER) Pushto/Pashto (PUS) Thai (THA) Tagalog (TAG)

CONCLUSIONS

- The composition of the patient population has experienced significant shifts with fewer Hispanics and more patients of Black, Asian, and mixed racial backgrounds.
- Moreover, the number of foreign languages spoken by children and parents has increased dramatically between 2010 and 2020, suggesting a greater number of Limited English Proficiency (LEP) pediatric patients and guardians/parents.
- These shifts at UNLV-SDM may suggest that an increased need for multilingual health materials, training, and translators may be needed to design and implement appropriate prevention and treatment strategies for pediatric oral health.

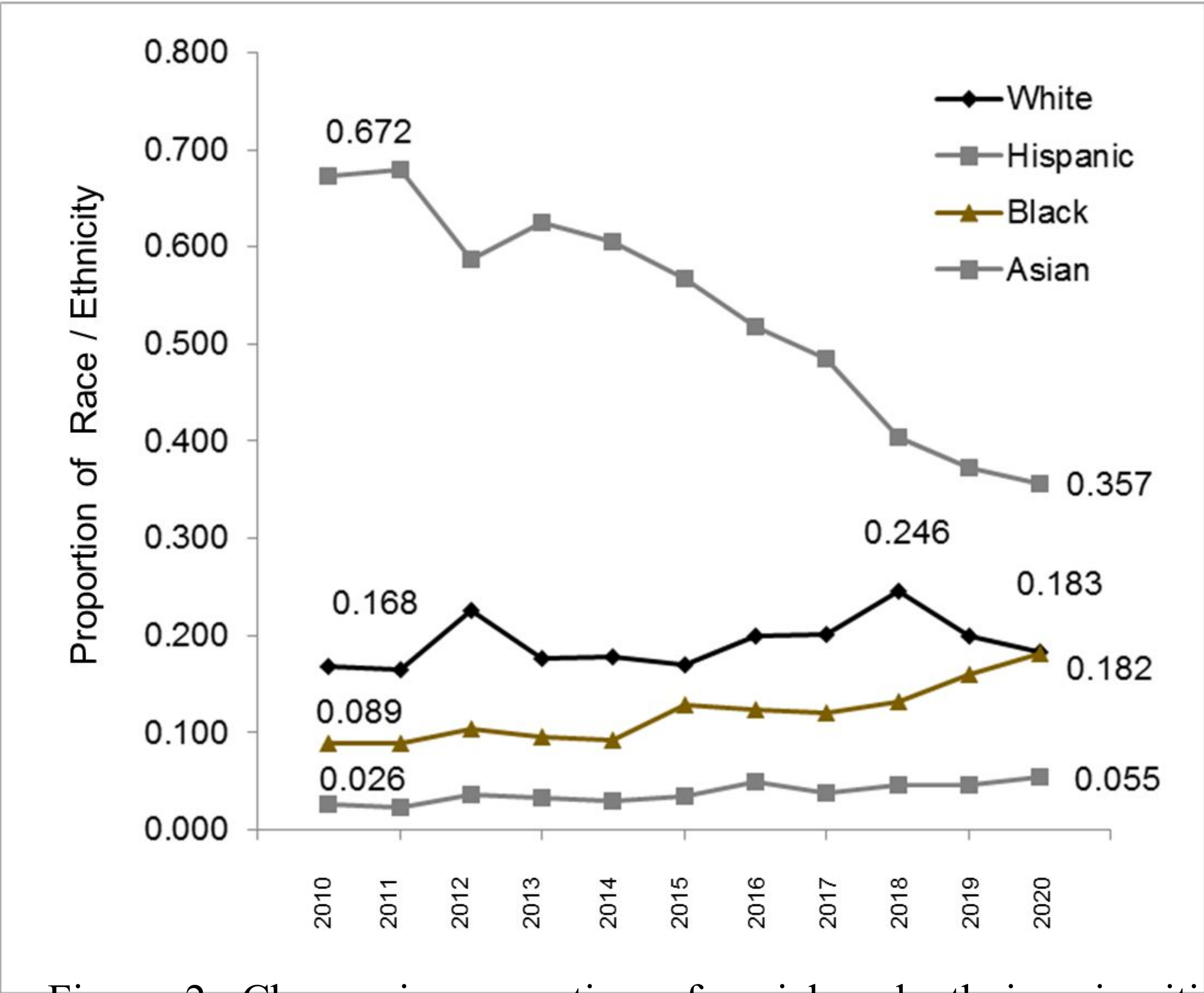


Figure 2. Change in proportion of racial and ethnic minorities within the patient population over time. The proportion of White / Caucasians remained fairly constant over time (16.8%, 2010 and 24.6%, 2018) although Hispanics decreased from 67.9% (2011) to 35.7% (2020). In contrast, the proportion of Blacks increased over time from 8.9% (2010) to 18.2% (2020) similar to the trend observed with Asians (2.6%, 2010 to 5.5%, 2020).

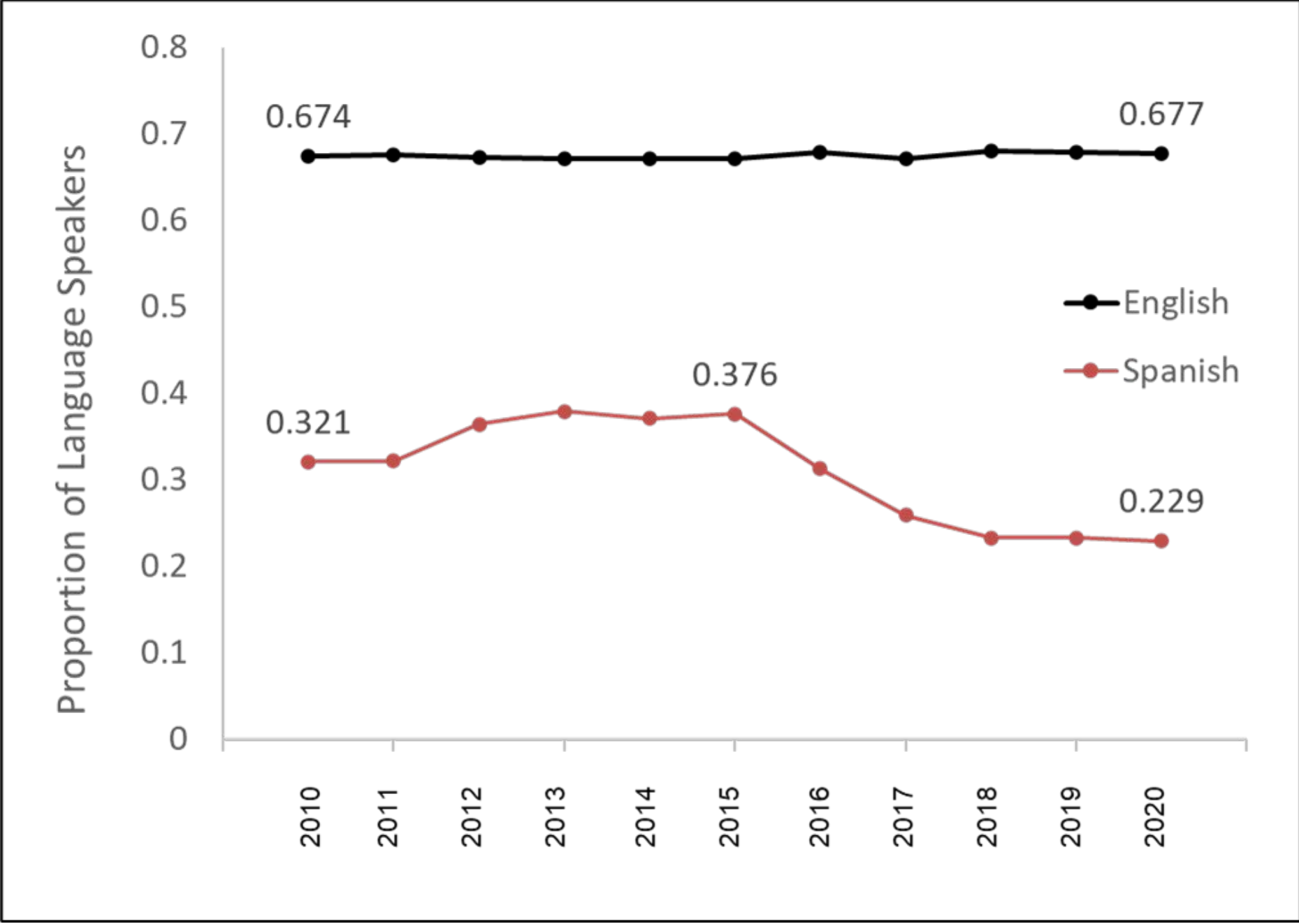


Figure 3. Change in the preferred language spoken over time. The majority of patients speak English as their preferred language, which remained relatively constant over time at approximately 67%. The percentage of patients who speak Spanish declined somewhat over time, decreasing from 32.1% (2010) to 22.9% (2020).

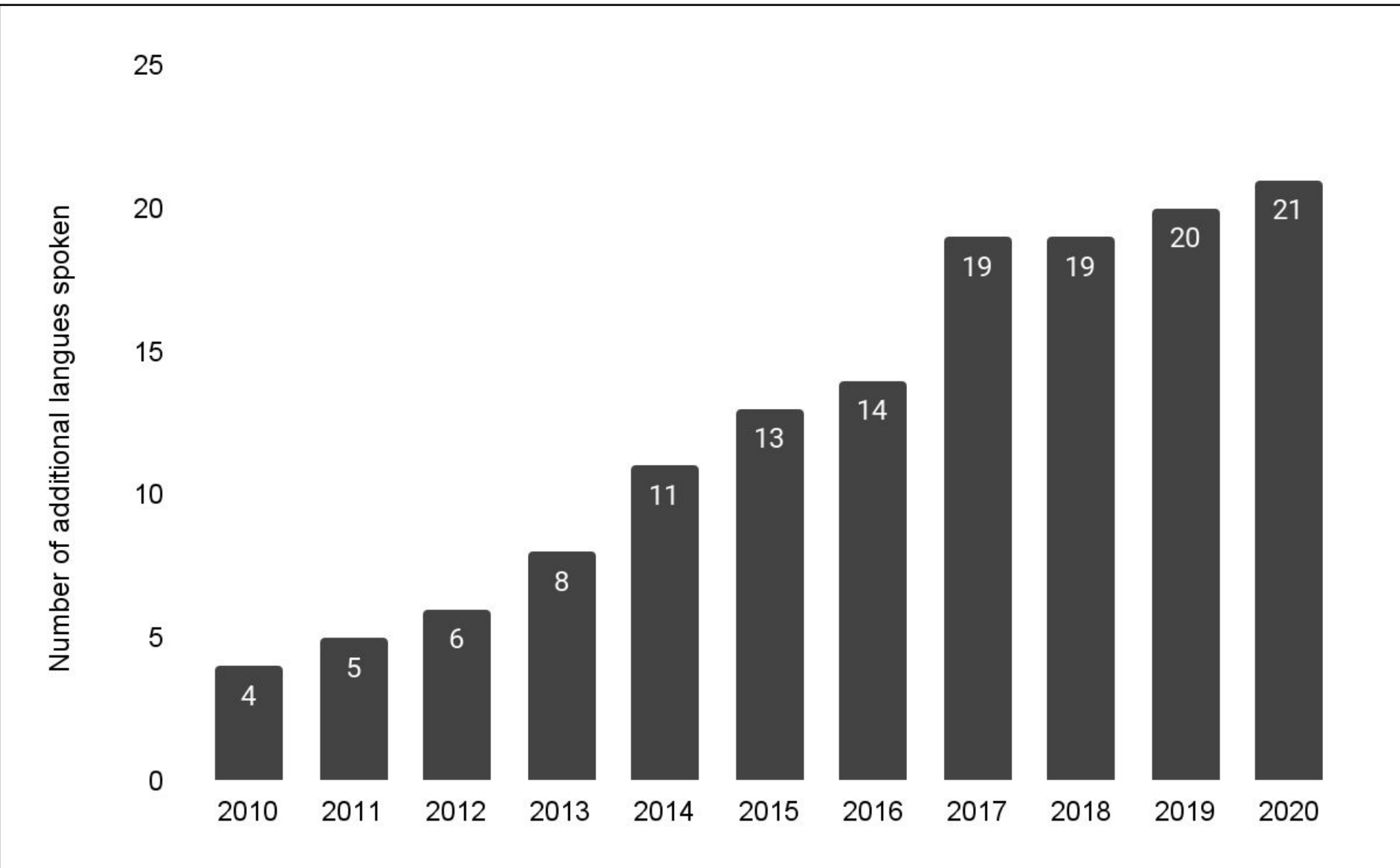


Figure 4. Additional languages (not English or Spanish) spoken by patients and family. The number of additional (non-English, non-Spanish) languages spoken has increased over time from a total of n=4 in 2010 to a total of n=20 in 2020 - mainly among Black or Asian patients.

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CITATION

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