

Specialty Care Utilization Among Adults with Limited English Proficiency



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BACKGROUND: People with limited English proficiency (LEP) face greater barriers to accessing medical care than those who are English proficient (EP). Language-related differences in the use of outpatient care across the full spectrum of physician specialties have not been studied.

OBJECTIVE: To compare outpatient visit rates to physicians in 28 specialties by people with LEP vs EP.

DESIGN: Multivariable negative binomial regression analysis of nationally representative data from the Medical Expenditure Panel Survey (pooled 2013–2018) with adjustment for age, sex, and self-reported health status.

PARTICIPANTS: 149,611 survey respondents aged 18 and older.

EXPOSURE: LEP, defined as taking the survey in a language other than English.

MAIN MEASURES: Annual per capita adjusted visit rate ratios (ARRs) comparing visit rates by LEP and EP persons to individual specialties, and to three categories of specialties: (1) primary care (internal or family medicine, geriatrics, general practice, or obstetrics/gynecology), (2) medical-subspecialties, or (3) surgical specialties.

KEY RESULTS: Patients with LEP were underrepresented in 26 of 28 specialties. Disparities were particularly large for the following: pulmonology (ARR, 0.26; 95% CI, 0.20–0.35), orthopedics (ARR, 0.35; 95% CI, 0.30–0.40), otolaryngology (ARR, 0.40; 95% CI, 0.27–0.59), and psychiatry (ARR, 0.43; 95% CI, 0.32–0.58). Among individuals with several specific common chronic conditions, LEP-EP disparities in visits to specialties in those conditions generally persisted. Disparities were larger for medical subspecialties (ARR, 0.41; 95% CI, 0.36–0.46) and surgical specialties (ARR, 0.46; 95% CI, 0.42–0.50) than for primary care (ARR, 0.76; 95% CI, 0.72 to 0.79).

CONCLUSIONS: Patients with LEP are underrepresented in most outpatient specialty practices, particularly medical subspecialties and surgical specialties. Our findings highlight the need to remove language barriers to physician services in order to ensure access to the full spectrum of outpatient specialty care for people with LEP.

Jessica Himmelstein and Christopher Cai are co-first authors.

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INTRODUCTION

Access to primary care and the full spectrum of medical specialty services is essential for ensuring high-quality medical care. People with limited English proficiency (LEP), currently over 8% of the US population (25 million individuals),¹ often face barriers to accessing health care services or receiving high-quality care.^{2,3} However, little is known about differences between LEP and English-proficient (EP) adults' outpatient visit rates to each physician specialty.

Language barriers can obstruct receipt of outpatient care in several ways. People with LEP are more likely than other individuals to forego needed outpatient care such as cancer screenings^{4,5} and vaccinations.^{6,7} In addition, LEP adults remain less likely to have a usual source of care or established primary care, even after implementation of the Affordable Care Act.⁸ LEP Hispanic adults make approximately half as many outpatient visits annually as do non-Hispanic EP adults.⁹

Data on outpatient specialty-care among LEP adults is scant. While a California study found that LEP adults self-report less need to see a medical specialist than EP adults,¹⁰ this may reflect, in part, reduced access to care and hence awareness of important but asymptomatic or pre-symptomatic conditions.¹¹ Even when individuals with LEP have access to specialty care, barriers may persist. Specialty-specific studies, such as in rheumatology, indicate that language barriers can reduce shared decision making¹² and worsen patients' understanding of medication side effects.¹³

A recent study found marked disparities by race/ethnicity in the use of care for a range of specialties.¹⁴ However, no analyses have assessed language-based disparities in outpatient visit rates to various specialties. Therefore, we examined differences in outpatient visit rates to 28 major physician specialties by LEP and EP adults nationwide.

METHODS

Data Source and Study Population

We pooled data from the 2013–2018 Medical Expenditure Panel Surveys (MEPS) to obtain an adequate sample size. The MEPS, administered by the Agency for Healthcare Quality and Research, collects information on respondents' demographics, medical conditions, and utilization from a nationally representative sample of the non-institutionalized, civilian US population.¹⁵ We linked MEPS Full-Year Consolidated files to the Outpatient and Office-Based Medical Provider Visit Files, which together provide information on all outpatient physician visits to doctors' offices, clinics, or hospital outpatient departments.

Measures

We analyzed visits to physicians by adults age 18 years or older across physician specialties. We lacked specialty designations for 1.9% of physician visits (11,920 of 633,942). We also excluded 17,415 visits to physician assistants (PAs) and 79,604 visits to nurse practitioners (NPs) or registered nurses (the MEPS combines NP and registered nurse visits), because these visits also lacked specialty information and are classified separately from physician visits by the MEPS. We also excluded visits to physicians identified only as "osteopaths" since osteopathic physicians may practice in any specialty.

We categorized patients as LEP if the MEPS survey was completed in a language other than English, with other respondents categorized as EP.⁹ We obtained information on patients' age, sex, self-reported health ("excellent," "very good," "good," "fair," and "poor"), years of education ("less than high school," "high school," and "some or more college"), family income (as a percent of the federal poverty level, which accounts for family size and inflation), and health insurance ("Medicaid," "Any Medicare," "Private," "other public" [e.g., VA, Tricare], "Other," and "Uninsured"). We also categorized patient self-reported race into six categories: non-Hispanic White (hereafter "White"), non-Hispanic Black ("Black"), non-Hispanic Asian/Pacific Islander ("Asian/PI"), Hispanic of any race ("Hispanic"), Native American and Alaskan Native ("Native Americans"), or Other ("Other").

We tabulated patient visits to physicians in 28 specialties: allergy and immunology, anesthesiology, cardiology, colorectal surgery, dermatology, endocrinology, family medicine, gastroenterology, general practice, general surgery, geriatrics, hematology, internal medicine, nephrology, neurology, obstetrics and gynecology (ob-gyn), oncology, ophthalmology, orthopedics, otolaryngology, pediatrics, physical medicine and rehabilitation (PMR), plastic surgery, psychiatry, pulmonology, radiology, rheumatology, thoracic surgery, and urology. We also categorized physician specialty as being "Primary Care Specialist" (internal medicine, ob-gyn, geriatrics, family medicine, general practice),¹⁶ "Medical Subspecialist" (allergy and

immunology, anesthesiology, cardiology, dermatology, endocrinology, hematology, nephrology, neurology, oncology, physical medicine and rehabilitation [PMR], psychiatry, pulmonology, radiology, rheumatology, but excluding geriatrics), or "Surgical Specialist" (colorectal surgery, general surgery, ophthalmology, orthopedics, otolaryngology, plastic surgery, thoracic surgery, and urology, but excluding ob-gyn). We substituted "colorectal surgery" for the outdated term, "proctology" used in the MEPS.¹⁷

Analyses

We calculated per capita adjusted visit rates for LEP vs. EP individuals using negative binomial regression models that adjusted for age, sex, and self-reported health for our primary analyses. Given the subjective and culture-bound nature of self-reported health scores, we conducted a sensitivity analysis that controlled for age and sex alone. Further sensitivity analyses included unadjusted analyses and analyses adjusted for age, sex, self-reported health, education, income, and health insurance. When adjusting for education, we excluded individuals under age 25, as these individuals are less likely to have completed their education.¹⁸ We also conducted sensitivity analyses of population subgroups including reproductive-aged women (age 15–44), privately insured individuals and individuals aged 65 and older. In addition, we explored whether LEP-EP disparities changed during the study period using models that included terms for year and for LEP-year interactions.

We conducted a sensitivity analysis, defining LEP as self-reported English proficiency ("very well" vs. less than "very well"), rather than the language used to complete the survey. In additional sensitivity analyses, we stratified and controlled for race/ethnicity. Due to limited sample size, we calculated visit ratios for Native American/Alaskan Native LEP individuals for broad specialty categories (i.e., primary care, medical subspecialties, and surgical subspecialties) rather than the 28 individual specialties.

Because language-based differentials in visits to specialties are influenced by differences in underlying medical need, we also identified several subsets of respondents with common chronic medical conditions (self-reported) that are often cared for by a specific physician specialty (e.g., asthma and pulmonology). Within these condition-specialty pairs, we examined language-based differentials in visits to the specific specialty. In addition to asthma-pulmonology, we examined visit rates for the following condition-specialty pairs: arthritis-orthopedics, arthritis-rheumatology, diabetes-ophthalmology, diabetes-endocrinology, chronic obstructive pulmonary disease (COPD)-pulmonology, stroke-neurology, and any heart disease (i.e., coronary heart disease, myocardial infarction, angina, or other heart disease)-cardiology. While severity of illness could influence visit rates in these analyses, we had no information on illness severity. Lastly to evaluate whether

Table 1 Characteristics of US Adults with Limited English Proficiency (LEP) and with English Proficiency (EP), 2013–2018

	LEP n= 24,169	EP n= 125,442
Population estimates	20.0 million/year (95% CI)	227.7 million/ year (95% CI)
Income, mean	\$53,389 (\$50,924, \$55,853) Percent (95% CI)	\$84,341 (\$82,738, \$85,944) Percent (95%CI)
Income relative to the federal poverty level		
<100%	22.6 (20.5, 24.8)	10.7 (10.2, 11.2)
100% to <125%	8.0 (7.5, 8.6)	3.8 (3.6, 4.0)
125% to <200%	23.0 (21.9, 24.1)	11.9 (11.6, 12.3)
200% to <400%	31.8 (30.0, 33.7)	28.5 (27.9, 29.1)
≥ 400%	14.6 (13.1, 16.3)	45.1 (44.1, 46.2)
Age		
18–34	34.5 (33.4, 35.5)	29.3 (28.6, 29.9)
35–44	21.1 (20.2, 22.2)	15.8 (15.3, 16.2)
45–54	18.5 (17.6, 19.5)	16.9 (16.5, 17.4)
55–64	12.3 (11.5, 13.1)	17.1 (16.6, 17.6)
65+	13.7 (12.5, 14.9)	21.0 (20.3, 21.5)
Sex		
Male	50.2 (49.4, 51.0)	48.1 (47.8, 48.5)
Female	49.8 (49.0, 50.6)	51.9 (51.5, 52.2)
Race/ethnicity		
Hispanic	88.6 (86.7, 90.2)	9.0 (8.3, 9.8)
White	2.7 (2.1, 3.4)	69.1 (67.7, 70.5)
Black	0.4 (0.2, 0.7)	12.8 (11.9, 13.8)
Asian	7.2 (5.8, 8.8)	6.1 (5.4, 6.8)
Native American/Alaskan	1.1 (0.8, 1.5)	0.7 (0.5, 0.9)
Native		
Multiracial	.07 (.02, 0.20)	2.4 (2.2 2.7)
Marital status		
Married	49.3 (47.6, 51.0)	52.3 (51.5, 53.1)
Not Married	50.7 (49.0, 52.4)	47.7 (46.9, 48.5)
Education level		
Less than high school	30.2 (28.4, 32.2)	2.6 (2.4, 2.8)
High school	42.4 (40.8, 44.0)	34.5 (33.6, 35.4)
Some or more college	27.4 (25.4, 29.5)	63.0 (62.0 64.0)
Employment		
Employed	65.8 (63.9, 67.7)	67.3 (66.6, 68.1)
Unemployed	34.2 (32.4, 36.1)	32.7 (31.9, 33.4)
Census region		
Northeast	14.1 (12.0, 16.5)	18.2 (17.1, 19.3)
Midwest	6.2 (4.9, 7.8)	22.4 (21.2, 23.6)
South	40.0 (35.0, 45.3)	37.2 (35.8, 38.7)
West	39.7 (35.4, 44.2)	22.2 (21.1, 23.3)
Self-rated health		
Excellent	23.9 (22.6, 25.4)	27.2 (26.7, 27.8)
Very Good	22.4 (21.3, 23.6)	34.1 (33.6, 34.6)
Good	33.3 (32.1, 34.6)	25.9 (25.5, 26.4)
Fair	17.3 (16.4, 18.2)	9.6 (9.3, 9.9)
Poor	3.1 (2.7, 3.4)	3.2 (3.0, 3.4)
Number of chronic conditions		
None	61.8 (60.2, 63.3)	43.1 (42.5, 43.8)
One	19.6 (18.6, 20.6)	24.5 (24.1, 24.8)
Two or more	18.6 (17.5, 19.9)	32.4 (31.8, 33.1)
Health insurance		
Private	33.1 (31.0, 35.3)	58.1 (57.1, 59.0)
Medicaid	16.9 (15.5, 18.5)	8.2 (7.7, 8.7)
Any Medicare	13.9 (12.7, 15.2)	21.6 (21.0, 22.3)
Other Public	1.7 (1.4, 2.2)	3.6 (3.3, 3.8)
Other	0.3 (0.2, 0.4)	0.6 (0.6, 0.7)
Uninsured	34.1 (31.9, 36.4)	8.0 (7.7, 8.3)
Born in USA		
Yes	21.7 (20.3, 23.2)	88.0 (87.4, 88.6)
No	78.3 (76.8, 79.7)	12.0 (11.4, 12.6)
Years lived in the USA		
0–4 years	5.6 (4.9, 6.6)	7.4 (6.5, 8.5)
5–9 years	11.1 (10.1, 12.2)	11.2 (10.3, 12.2)
10 years or more	83.3 (81.8, 84.7)	81.4 (79.8 82.8)

Source: authors' analysis of data from the 2013–2018 Medical Expenditure Panel Survey (MEPS)

Notes: data on family income missing for 49 people. Data on marital status missing for 50 people, on employment for 1,627 (1.1%) people, on region for 1,279 people (0.9%), on health status for 3,506 (2.3%) people, and on chronic conditions for 2,264 (1.5%) people. Education excluded individuals under age 25, as these individuals are less likely to have completed their education¹⁸ and has missing data for 1,680 (1.3%). Data on birthplace missing for 1,127 (0.8%) people and on years lived in the USA missing for 454 (0.3%) people. Years lived in the USA based on only foreign-born respondents. Chronic conditions include any heart disease diagnosis, any cancer diagnosis, stroke, COPD, asthma, diabetes, high blood pressure, and arthritis. Limited English proficiency (LEP) was categorized by language of interview and defined as “English and Spanish,” “Spanish,” or “Other” language

disparities differed by broader categories of physician specialization, we stratified our analyses by “primary care specialties,” “medical subspecialties,” and “surgical specialties”; we also estimated language-based disparities among all specialties combined (“all specialties”).

We performed all analyses with Stata version 16.1, using MEPS-supplied weights that allow national estimates and procedures that account for the complex survey design. We considered p values < 0.05 significant. The Cambridge Health Alliance Institutional Review Board exempted this study of publicly available de-identified data from review.

RESULTS

Our sample included 149,611 adults, of whom 24,169 had LEP. Compared to EP adults, those with LEP were younger and more likely to be Hispanic, and had lower incomes and educational attainment. They also had fewer chronic conditions but worse self-reported health, and were more likely to be uninsured or to have public insurance. LEP individuals were more likely to live in the West and South Census regions. In addition, LEP individuals were more likely to be foreign-born than EP individuals; however, most LEP individuals had lived in the USA for 10 or more years (Table 1).

Adults with LEP had lower visit rates (adjusting for age, sex, and self-reported health status) than EP adults for 26 of 28 specialties (Figure 1, Table S1). Among specialties with a substantial numbers of visits, adjusted visit rate ratios (ARRs) for LEP adults were particularly low for pulmonology (ARR 0.26, 95% CI 0.20 to 0.35; $p < 0.001$), orthopedics (ARR 0.35; 95% CI 0.30 to 0.40; $p < 0.001$), otolaryngology (ARR 0.40; 95% CI 0.27 to 0.59; $p < 0.001$), psychiatry (ARR 0.43; 95% CI 0.32 to 0.58; $p < 0.001$), and internal medicine (ARR 0.44; 95% CI 0.38 to 0.52; $p < 0.001$). Disparities were present but smaller for family medicine (ARR 0.62; 95% CI 0.56 to 0.69; $p < 0.001$), endocrinology (ARR 0.62; 95% CI 0.50 to 0.78; $p < 0.001$), ob-gyn (ARR 0.72; 95% CI 0.65 to 0.80; $p < 0.001$), and non-significant for thoracic surgery (ARR

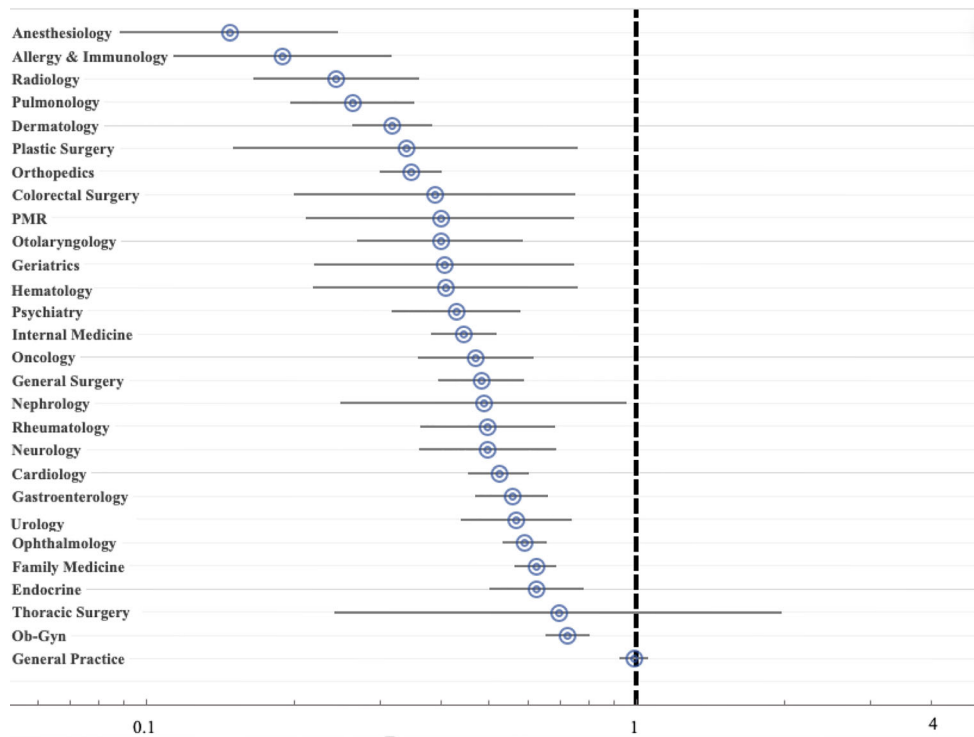


Figure 1 Adjusted visit rate ratios, LEP vs. EP adults, by specialty, 2013–2018. Source: authors’ analysis of data from the 2013–2018 Medical Expenditure Panel Survey (MEPS). Notes: ages 18+. Controlled for age, sex, and self-reported health. LEP, limited English proficiency; EP, English proficient. Error bars represent 95% confidence intervals which account for MEPS complex survey design. Endocrine, "Endocrinology"; Ob-Gyn, "Obstetrics and Gynecology"; PMR, "Physical Medicine & Rehabilitation." General Practice likely contains some General Internists and Family Medicine Physicians as specialties are patient-reported.

0.69; 95% CI 0.24 to 1.98; $p=0.49$) and general practice (ARR 0.99; 95% CI 0.92 to 1.05; $p=0.70$).

The sensitivity analysis using an alternative definition of LEP yielded similar results (Table S2), as did sensitivity analyses that were either unadjusted or controlled only for age and sex (Table S3-S4, Figure S1-S2). Disparities persisted but were attenuated in sensitivity analyses with additional controls for health insurance, income, and education (Table S5, Figure S3), with ARRs remaining significantly below 1.0 for 14 of 28 specialties. Disparities in visit rates also persisted for most specialties in sensitivity analyses of population subgroups stratified by age, age and gender, or insurance (Figures S4-S7). LEP-EP analyses stratified by Hispanic ethnicity yielded similar results (Table S6), although estimates for non-Hispanic Asian adults had wide confidence intervals and most were non-significant (Table S7). Among Native American/Alaskan Native individuals, LEP-EP disparities were present for medical subspecialties and surgical specialties but not primary care (Table S8). Similarly, models that included controls for race/ethnicity in addition to age, sex, and self-reported health yielded results similar to our main analyses (Table S9).

Although our study period crossed the implementation of the Affordable Care Act, time trend analyses found little evidence of change in LEP-EP disparities during the study

period, as indicated by the lack of significance of the year/LEP interaction terms (Table S10).

In analyses of condition-specific patient/specialty pairs, LEP individuals had lower visit rates for most specialties (Table 2). LEP individuals with arthritis had lower visit rates to orthopedists (ARR 0.60; 95% CI 0.48 to 0.75; $p<0.001$) but not rheumatologists; those with heart disease had lower visit rates to cardiologists (ARR 0.81; 95% CI 0.67 to 0.99; $p=0.038$); those with diabetes had lower visit rates to

Table 2 Adjusted Visit Rate Ratios, LEP vs EP Adults, by Chronic Condition–Specialty Pairs, 2013–2018

Diagnosis	Specialty	Adjusted rate ratio (ARR)* (95% CI)	p value
Arthritis	Orthopedics	0.60 (0.48 0.75)	<0.001
Arthritis	Rheumatology	1.02 (0.71 1.47)	0.92
Diabetes	Ophthalmology	0.78 (0.67 0.92)	0.003
Diabetes	Endocrinology	0.67 (0.53, 0.85)	0.001
Asthma	Pulmonology	0.61 (0.36, 1.04)	0.07
COPD	Pulmonology	0.41 (0.22 0.76)	0.005
Stroke	Neurology	1.29 (0.52 3.19)	0.58
Any heart disease	Cardiology	0.81 (0.67 0.99)	0.038

Source: authors’ analysis of data from the 2013–2018 Medical Expenditure Panel Survey (MEPS)
 Notes: ages 18+. *Controlled for age, sex, and self-reported health. LEP, limited English proficiency; EP, English proficient. Diagnoses were self-reported. Any heart disease defined as self-reporting coronary heart disease, myocardial infarction, angina, or other heart disease

Table 3 Adjusted Visit Rate Ratios, LEP vs EP Adults, Specialty Categories, 2013–2018

	Adjusted rate ratio (ARR)*	95% CI		p value
Primary care specialties	0.76	0.72	0.79	<0.001
Medical subspecialist	0.41	0.36	0.46	<0.001
Surgical specialist	0.46	0.42	0.50	<0.001
Overall	0.59	0.56	0.62	<0.001

Source: authors' analysis of data from the 2013–2018 Medical Expenditure Panel Survey (MEPS)

Notes: ages 18+. *Controlled for age, sex, and self-reported health. LEP, limited English proficiency; EP, English proficient

"Primary care," Internal Medicine, Ob-Gyn, Geriatrics, Family Medicine, General Practice

"Medical Subspecialist," Allergy and Immunology, Anesthesiology, Cardiology, Dermatology, Endocrinology, Gastroenterology, Hematology, Nephrology, Neurology, Oncology, Physical Medicine and Rehabilitation, Psychiatry, Pulmonology, Radiology, Rheumatology, but excludes Geriatrics

"Surgical Specialist," Colorectal Surgery, General Surgery, Ophthalmology, Orthopedics, Otolaryngology, Plastic Surgery, Thoracic Surgery, Urology, but excludes Ob-Gyn

ophthalmologists (ARR 0.78; 95% CI 0.67 to 0.92; $p=0.003$) and endocrinologists (ARR 0.67; 95% CI 0.53 to 0.85; $p=0.001$); and those with COPD had lower rates to pulmonologists (ARR 0.41; 95% CI 0.22 to 0.76; $p<0.005$). Further adjustment for insurance, education, and income attenuated these disparities (Table S11).

In analyses of broader physician specialty categories, the disparities were larger for medical subspecialties (ARR 0.41; 95% CI 0.36 to 0.46; $p<0.001$) and surgical specialties (ARR 0.46; 95% CI 0.42 to 0.50; $p<0.001$), than for primary care specialties (ARR 0.76; 95% CI 0.72 to 0.79; $p<0.001$) (Table 3); these disparities were attenuated but remained significant for medical and surgical specialties in sensitivity analyses controlling for income, education, and insurance (Table S12). Overall visit rates to all types of physicians combined were much lower for LEP individuals (ARR 0.59; 95% CI 0.56 to 0.62; $p<0.001$).

DISCUSSION

Adults with LEP have lower visit rates than those with EP to nearly all physician specialties, even after controlling for age, sex, and health status. The LEP-EP differences generally persisted after additional adjustment for well-known correlates of healthcare access (income, education, and insurance). Disparities were particularly large for medical subspecialists and surgical specialists, although disparities were also observed for primary care physicians. These findings highlight the need to assure access to the full range of physician services for individuals with LEP.

Our results are consistent with previous findings that language barriers reduce access to care. LEP individuals are less likely to have a usual source of care or receive guideline-

recommended services, and are more likely to forgo needed outpatient care.^{2–8} In addition, total health care expenditures for (on behalf of or by) LEP Hispanic adults are approximately one-third lower than for other adults, with similar disparities in outpatient expenditures.⁹ Our current findings highlight the pervasive effects of having LEP in decreasing the utilization of not only primary care but almost all medical and surgical specialist care.

Several factors may contribute to LEP individuals' low visit rates. Their medical needs might be lower, consistent with the "healthy immigrant" effect.¹⁹ However, LEP individuals in our study reported worse self-reported health. While a higher proportion of LEP than EP adults reported no chronic medical conditions, persons with inadequate access to care are often unaware of important asymptomatic (or minimally symptomatic) chronic conditions such as hypertension, type-2 diabetes, or hypercholesterolemia.²⁰ Moreover, in our analysis of chronic condition–specialty pairs, we observed LEP-EP disparities. It is also possible that LEP individuals preferentially seek and substitute alternative/complementary medicine for western biomedical approaches to health care, although a recent review suggested that discrimination by biomedical providers likely explained, in part, racial and ethnic minorities' greater propensity to utilize complementary or alternative medicine.²¹

LEP adults' lower incomes and educational attainment, and higher rates of uninsurance or public insurance likely contribute to their worse access to care.^{22,23} However, LEP-EP disparities persisted after controlling for income, education, and insurance status. While excessive utilization by EP patients could contribute to the differences we observed, previous studies have found lower use of clinically appropriate screening tests among those with LEP.^{2,9}

Visit rates to medical subspecialists and surgical specialists could reflect the referral behaviors of primary care physicians, although the effect of patient-provider language barriers on referral patterns is not well understood. Black Americans are less likely to receive referral to specialists, and it is possible this is also true for LEP individuals.²⁴ Communication barriers with a primary care provider might plausibly prompt higher rates of specialty referrals due to poorer understanding of a patient's clinical picture, or reduce referrals by obstructing identification of problems requiring specialist consultation.

Navigating the health care system is often complex, and for people whose primary language is not English it can be overwhelming, particularly if medical staff²⁵ and providers²⁶ cannot provide language-concordant care or interpreter services.²⁷ Past experiences may lead LEP patients to avoid the healthcare system for fear of discrimination,²⁸ a problem that may be exacerbated by disparities in telehealth services due to inadequate access to web-enabled devices and bandwidth.²⁹

Our study has limitations. Our LEP sample consisted mainly of Spanish speakers and may not be generalizable to patients speaking other languages. Our definition of LEP was based on the language of the administered survey and may

imperfectly capture an individual's ability to speak English. However, sensitivity analyses using self-reported English proficiency, a metric used by the American Community Survey to assess English proficiency, yielded similar results. We are not able to directly evaluate mechanisms for these inequities, which may include differences in referral rates or interpreter use. Self-reported health status may not adequately capture health status differences, and even our chronic condition–specialty pair analyses do not fully exclude the possibility that underlying health differences account for some of the disparities we observed. In addition, dividing all specialties into three categories necessitated some arbitrary decisions, such as including the small number of outpatient visits to Radiology under medical subspecialties. However, reclassifying such specialties would have little effect on our findings. Lastly, the MEPS excludes institutionalized individuals.

Social, political, and economic forces impede care for LEP individuals, most of whom are Hispanic, likely creating a structural form of discrimination that leads to the low rates of specialty visits we observed. Hence, multifaceted interventions may be required to improve care for LEP patients. Currently only 15 states' Medicaid/sCHIP programs reimburse providers for interpreter use, and most other insurers (including Medicare) do not reimburse language services.^{30,31} Ameliorating access barriers for LEP patients will require recognizing (and paying for) interpreters as an essential part of healthcare teams. The number of multilingual providers could be increased by recruiting multilingual applicants to medical schools as well as providing language training programs throughout medical training.³² Enforcing standardization of certification to assure language mastery of multilingual medical providers and medical interpreters is also important to ensuring optimal patient-provider communication.³³ Finally, anti-immigrant political rhetoric and harsh policies that create a climate of fear — fear which often deters immigrants from seeking needed nutrition, housing, and medical services — must end.^{34,35}

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Declarations:

Conflict of Interest: Christopher Cai (co-author) has previously worked as a paid summer health policy fellow for US Representative Pramila Jayapal, the lead cosponsor of the Medicare for All Act of 2021; as a paid summer researcher for Physicians for a National Health Program (PNHP), a nonprofit which favors single-payer health reform; and as an unpaid board member of Students for a National Health Program (SNaHP) and PNHP.

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