Ninez A. Ponce Leighton Ku William E. Cunningham E. Richard Brown

Language Barriers to Health Care Access Among Medicare Beneficiaries

This study examined language barriers to health care access among a population-based sample of Medicare seniors in California in 2001 and 2003. Results indicate that Medicare beneficiaries with limited English proficiency (LEP) had less access to a usual source of care and were less likely to receive preventive cancer screening tests. LEP Medicare beneficiaries who also were covered by Medicaid tended to fare better than those without Medicaid. This could be due to federal civil rights rules that require Medicaid health care providers to offer free language assistance, but exclude from these requirements physicians who provide only Medicare services. Findings suggest the federal government should take steps to reduce language barriers in Medicare.

A substantial body of research demonstrates that children and adults with limited English proficiency (LEP) experience difficulties accessing mainstream health care services. Language barriers can reduce the quality of care, while the use of trained interpreters can improve access, quality, and patient satisfaction (Perez-Stable, Napoles-Springer, and Miramontes 1997; Baker, Hayes, and Fortier 1998; Flores et al. 1998; Tocher and Larson 1998; Lee et al. 2002; Flores et al. 2003; Ku and Waidmann 2003).

Relatively little of the research about healthrelated language barriers examines the problems faced by older adults. Language barriers could affect many Medicare beneficiaries. Data from the 2000 census reveal that a large number of older adults across the nation—about 2.3 million, or almost 7% of people 65 or older—do not speak English or do not speak it "very well" (American FactFinder 2000).

To ensure that there is no discrimination on the basis of national origin, Title VI of the Civil Rights Act and federal civil rights policy require that health care providers receiving federal funds make interpretation services available to LEP patients (Presidential Executive Order 13166 2000; U.S. Department of Health and Human Services Office of Civil Rights 2003; Ponce and Penserga 2002). However, much of the adherence to this mandate has occurred in state Medicaid programs (Youdelman and Perkins 2002). This is because unlike the policy with Medicaid, states have no authority or matching fund mechanism to improve language access for the federally

Ninez A. Ponce, Ph.D., M.P.P., is an assistant professor in the School of Public Health, University of California, Los Angeles (UCLA). Leighton Ku, Ph.D., M.P.H., is a senior fellow at the Center on Budget and Policy Priorities. William E. Cunningham, M.D., M.P.H., is a professor in the UCLA School of Public Health and the UCLA School of Medicine. E. Richard Brown, Ph.D., is a professor in the UCLA School of Public Health and director of the UCLA Center for Health Policy Research. This research was funded primarily by the Commonwealth Fund. Address correspondence to Prof. Ponce at Department of Health Services, School of Public Health, Campus Box 951772, University of California, Los Angeles, Los Angeles, CA 90095-1772. Email: nponce@ucla.edu

administered Medicare program. Thus, health care access problems due to language may be severe for seniors covered by Medicare, particularly those who are covered by Medicare only.

Using data from the 2001 and 2003 California Health Interview Survey (CHIS), this study examines whether LEP status is related to health care access for Medicare beneficiaries in California, the state with the largest LEP population. Based on the survey, an estimated 13% of the adult population (age 18 and older) is LEP, as are 8% of Medicare beneficiaries, age 65 and older. Because older adults who are dual eligible for both Medicaid and Medicare may have better access to interpretation services under Medicaid, we also examine people's health care access by coverage type: those who are dual eligible, those who have private supplementary coverage, and those who have Medicare only.

Methodology

Data Source

This study pooled two years of data (2001 and 2003) from the California Health Interview Survey, which represents the state's noninstitutionalized population. Conducted by the UCLA Center for Health Policy Research, the California Department of Health Services, and the Public Health Institute, CHIS is a bi-annual health survey, and the largest state survey in the United States. The survey includes modules on health care access, health insurance, and selected chronic conditions (California Health Interview Survey 2002).

The CHIS was conducted in English, Spanish, Cantonese, Mandarin, Korean, Vietnamese, and Khmer (only in 2001), and provides information that can capture the language needs of Latino and Asian populations, the predominant immigrant groups in California and in the United States (Schmidley 2003). In addition, the survey questionnaire underwent extensive cultural adaptation for Latino and Asian groups, and refereed translation processes (Ponce et al. 2004).

Our study subjects were adults, age 65 and older, who reported Medicare coverage (N = 18,948). For some of the frail older adults, interviews were conducted by proxy with other members of their households. Approximately 12% of household income as percentage of poverty level was imputed by the UCLA Center for Health Policy Research. The remaining missing

observations, consisting of no more than 3% of the study sample, were omitted from analyses. A total of 3,499 subjects reported health insurance coverage from both Medicaid and Medicare; 14,107 seniors reported coverage by Medicare and a supplementary source (Medicare plus), and 1,342 seniors reported Medicare as their only coverage source.

Although CHIS data is particularly well-suited for this study, California does not represent the entire United States. California has the highest number of older adults who do not speak English well, but data from the 2000 census show similar concentrations of LEP seniors across the nation: 5% or more of seniors have limited English skills in 16 of the 50 states, and every state has at least 1,000 such seniors (American FactFinder 2000). As a result of California's multicultural traditions, it is probably easier to find a bilingual health care provider or a trained interpreter in California than in most other states in the nation. In addition, California covers through Medicaid recent legal immigrants, including those who arrived after 1996, unlike the majority of states that do not provide this coverage. However, unlike states such as Hawaii and Washington, California, like most others, does not directly reimburse providers for language services, although the state requires Medicaid managed care plans to offer interpretation services (Asian and Pacific Islander American Health Forum 2002). California probably also has more safety-net providers and language access advocates than most other states. On balance, California may represent a better case scenario for language access, rather than a typical case, so that access problems may be more severe for LEP older adults in other areas.

Dependent Variables

For this analysis, health care access was assessed as three separate measures: 1) having a usual source of care, 2) receipt of a mammogram among female beneficiaries in the past two years to screen for breast cancer, and 3) receipt of a fecal occult blood test (FOBT) in the past year to screen for colorectal cancer (or other gastrointestinal bleeding). To evaluate access to preventive care rather than treatment or follow-up cancer tests: for the FOBT, we excluded subjects who previously had been diagnosed with colorectal cancer; for mammograms, women diagnosed

with breast cancer or who reported a previous lumpectomy were excluded.

Independent Variables

We specified three language usage cohorts: 1) LEP, where the individual reported speaking English not well or not at all, 2) bilingual, where the bilingual or multilingual individual reported speaking English well or very well, but spoke languages other than English at home or completed the interview in a non-English language, and 3) English only, where the individual completed the survey in English and reported English as the only language spoken at home.

As covariates, we included: race/ethnicity, gender, marital status, household income as a percentage of the 2001 or 2003 federal poverty threshold, education, age, urban vs. rural residence (based on Claritas designation, http://www.claritas.com), self-rated health status, and the number of chronic health conditions out of a possible set of five reported diagnosed conditions—asthma, diabetes, cancer, high blood pressure, and heart disease. Since usual site of care may be what drives the receipt of language services among LEP patients, for the cancer screening outcomes, we included the source of care (none, safety net, non-safety net).

Analysis

We fit multivariate logit models to predict binary outcomes for having a usual source of care, mammogram, or fecal occult blood test. Odds ratios from the logit models of dichotomous health access measures are reported.

Four models are shown for each dependent variable: one for all Medicare beneficiaries, one for "dual eligibles" enrolled in both Medicaid and Medicare, one for those with private supplemental coverage such as Medigap or retirement plan coverage, and one for those with Medicare only—a group at risk for lacking comprehensive health care coverage because its incomes are too high to qualify for Medicaid but not high enough to purchase supplementary policies.

For each model, we estimated variations with main effects only, and also with interactions between LEP status and Latino or Asian status, testing for the possibility that effects vary for different racial/ethnic groups. If at least one of the interaction terms was significant, we present the models with interaction terms; if not, we present

the main effects models. Since inclusion of interaction terms slightly reduced the robustness of the main effects in some cases, we present significance levels for all parameters as high as the 10% level. We computed predicted values for each health outcome measure by LEP status, holding all other factors constant at mean values. Data management and analyses were performed using STATA 8.0 software. All analyses were weighted and standard errors were adjusted to account for sample design effects. We used CHIS 2001/2003 survey weights released in February 2003, applying the California Department of Finance estimates of the adult population (California Health Interview Survey 2005).

Results

Characteristics of Medicare Beneficiaries Age 65 and Older

Overall, Medicare adults nearly always had a usual source of care and had relatively high mammogram rates (79%), but had low rates of receipt of an annual fecal occult blood test (24%) (Table 1). Fewer dual-eligible seniors (those on Medicare and Medicaid) had a usual source of care and fewer received preventive cancer screening tests than those with Medicare plus a supplementary policy; however, dual eligibles had better health care access than those with Medicare only. Compared to seniors with private supplementary coverage, a higher proportion of both dualeligible seniors and seniors with Medicare only relied on the safety net as a usual site of care. As expected, dual eligibles consisted of a more vulnerable population—more LEP seniors, more racial/ethnic minorities, people with lower incomes and educational attainment, and greater proportions reporting fair or poor health status (Table 1).

A quarter of dual-eligible beneficiaries had difficulty speaking English, approximately 92,000 out of 377,000 dual eligibles (from the 2001 and 2003 CHIS). The percentage of non-dual eligibles (Medicare plus and Medicare only) who were LEP was much smaller, but still numbered about 49,000 older adults in California. LEP older adults were overwhelmingly Latino or Asian.

Access to Medical Care

After controlling for a broad array of sociodemographic and health variables, among all Medicare beneficiaries LEP seniors were less likely to have

Table 1. Characteristics of Medicare beneficiaries 65 or older, California, 2001/2003

Beneficiary characteristics	All Medicare (<i>n</i> = 18,948)	Dual eligible $(n = 3,499)$	Medicare only $(n = 1,342)$	Medicare plus (<i>n</i> = 14,107)
Have a usual source of care (%)	97	95	90	98
Usual source is safety net	8	16	16	5
Usual source is non-safety net	89	80	75	92
Mammogram past 2 years ^a (%)	79	71	63	82
Fecal occult blood test ^b (%)	25	21	20	27
Language (%)				
Limited English proficient (LEP)	8	24	11	3
Bilingual	17	20	24	15
English only	75	53	65	82
Race/ethnicity (%)				
Latino	9	22	15	5
LEP Latino	4	11	5	1
Asian	10	21	10	7
LEP Asian	4	11	5	1
Black or African American	5	12	5	3
American Indian/Alaska Native	1	1	1	1
Other single race/multiracial	3	3	3	2
White	72	41	65	82
% Rural (ref. urban)	15	13	19	15
% Female (ref. male)	57	60	59	56
% Married (ref. not married)	55	43	48	60
Family income as % poverty level (%)				
<100% FPL	13	38	16	5
100–199% FPL	26	40	34	20
200–299% FPL	18	12	17	20
≥300%	43	10	32	54
% High school graduate	77	52	71	85
Mean age	75	74.8	75	75
Health status (%)				
Excellent	12	6	14	14
Very good	25	14	21	29
Good	30	26	30	31
Fair	22	33	26	19
Poor	10	20	9	7
Mean number of chronic conditions	1.3	1.4	1.1	1.3
% Year 2001 (ref: year 2003)	48	49	51	48

Note: Proportions may not add up to 100% due to rounding.

a usual source of health care (Table 2) than those who spoke only English. Other key factors that increased the likelihood of having a usual source of care included: having supplementary coverage to Medicare (Medicaid or private), having a higher income, being a high school graduate, being Asian, and being in poorer health.

We found the same language disadvantage in the models stratified by type of coverage, where LEP seniors were less likely to have a usual source of care compared to seniors speaking only English. However, we detected a significant reduction in access only among LEPs covered by Medicare and private supplementary insurance.

Use of Preventive Services

For female Medicare beneficiaries who were not dual eligibles, LEP status and being Asian had

^a Sample sizes are smaller for females with no breast cancer diagnosis.

^b Sample sizes are smaller for no colorectal cancer diagnosis.

Table 2. Effects of limited English proficiency on access to care: usual source of health care, Medicare beneficiaries 65 or older, California, 2001/2003

	Have usual source of care (odds ratio)				
Characteristics	All Medicare	Dual eligible	Medicare only	Medicare plus	
Sample size	18,873	3,472	1,332	14,069	
Language (ref = English only) Limited English proficient Bilingual	.51**	.52	.51	.40*	
	.91	1.87	.64	.84	
Interaction LEP & race/ethnicity LEP*Latino LEP*Asian		_		_	
Race/ethnicity (ref = white) Latino Asian Black or African American American Indian/Alaska Native Other single race/multiracial	1.42	1.77	1.57	1.37	
	2.52***	4.03**	8.90***	1.15	
	1.16	1.88	1.05	.77	
	.64	.75	.54	.52	
	.55	.61	1.07	.44	
Insurance (ref = Medicare only) Medicare and Medicaid Medicare plus other	2.65***	_	_	_	
	3.75***	_	_	_	
Rural (ref = urban) Female (ref = male) Married (ref = not married)	.88	.78	1.41	.77	
	1.24	1.37	1.36	1.13	
	1.77***	1.85**	1.46	1.85***	
Income as % poverty (ref $\geq 300\%$) < 100% 100–199% 200–299%	.54***	.28***	.41**	.83	
	.69**	.40**	.50*	.87	
	.70**	.41**	.49	.85*	
High school graduate (ref = not grad) Age (years)	1.41**	1.37	.75**	1.78**	
	1.01	1.01	1.04**	.99	
Health status (ref = excellent)	1.60***	1.14	2.34**	1.60**	
Very good Good Fair Poor	1.79*** 1.72** 1.66**	1.14 1.31 1.41 1.98	1.72 1.43 2.45	2.04*** 2.06*** 1.02	
Chronic conditions	1.68***	1.48**	1.76***	1.83***	
Year of survey (ref = 2003)	.97	1.21	1.13	.81	

significant negative interaction effects on the probability of having a mammogram within the past two years (Table 3). However, there were positive main effects for Latino and Asian status. We combined these factors in our estimates of predicted probabilities shown in Table 5. Among the dually eligible, we found no difference by language status, but Asians were significantly less likely to receive a mammogram in the past two years. Being LEP and Asian also had a significant negative interaction effect for those with Medicare only and for those with Medicare plus private supplementary coverage. Interestingly, among older adults with Medicare-only coverage, those who were bilingual had higher odds of receipt of a recent mammogram than adults speaking only English. Having a usual source of care, whether safety net or not, was strongly predictive of receipt of mammograms.

For all Medicare beneficiaries, those who were LEP were substantially less likely to have had an FOBT, although there were strong positive interaction terms for LEP Asians (Table 4). This pattern of an LEP penalty yet a positive

^{*} p < .10.

^{**} p < .05.

^{***} p < .01.

Table 3. Effects of limited English proficiency on mammograms, Medicare female beneficiaries 65 or older, California, 2001/2003

	Had mammogram in past two years (odds ratio)				
Characteristics	All Medicare	Dual eligible	Medicare only	Medicare plus	
Sample size	11,191	2,103	792	8,296	
Language (ref = English only)					
Limited English proficient	1.56	.98	3.70	1.17	
Bilingual	.97	.97	1.94*	.97	
Interaction LEP & race/ethnicity					
LEP*Latino	.59	_	.14	.35	
LEP*Asian	.24**		.06**	.17**	
Race/ethnicity (ref = white)					
Latino	1.29	1.15	1.87	1.37	
Asian	1.16	.57**	2.01	1.61*	
Black or African American	1.33	1.15	4.94***	1.25	
American Indian/Alaska Native	.88	.54	2.27	1.00	
Other single race/multiracial	1.49	.90	9.89***	1.63	
Insurance (ref = Medicare only)					
Medicare and Medicaid	1.46***	_	_	_	
Medicare plus other	2.09***	_	_		
Rural (ref $=$ urban)	.92	.94	1.07	.87	
Married (ref $=$ not married)	1.45***	1.64**	1.35	1.41***	
Income as % poverty (ref $\geq 300\%$ FLP)					
<100%	.82	1.16	1.17	.65**	
100–199%	.79**	1.08	1.33	.76**	
200–299%	.79**	1.23	.63	.81*	
High school graduate (ref = not grad)	1.12	.80	2.25***	1.20	
Age (years)	.95***	.95***	.98	.94***	
Health status (ref = excellent)					
Very good	1.08	1.54	.96	1.01	
Good	1.08	1.56	1.55	.99	
Fair	.84	1.29	1.29	.74*	
Poor	.62***	.86	1.54	.54***	
Chronic conditions	1.08**	1.03	1.28*	1.08*	
Usual source of care (ref = none)					
Safety net	4.59***	2.80**	5.80***	5.17***	
Not safety net	6.22***	2.93***	13.47***	7.56***	
Year of survey (ref $= 2003$)	1.08	.97	.83	1.14	

interaction effect for LEP Asians was similar among the dual eligibles. For older adults covered only by Medicare, we found LEP status associated with higher odds of an FOBT, but the LEP and Latino interaction indicated much reduced odds for this group so that the combined effect of being LEP and Latino was associated with lower odds of receiving an FOBT. We found no language status differences for seniors with

Medicare plus supplementary coverage, although Asian seniors were significantly less likely than whites to receive an FOBT. As with the mammogram results, having a usual source of care had a strong promotive effect on the likelihood of receiving an FOBT. Unlike mammograms, dual-eligible older adults had no advantage in receipt of an FOBT compared to those covered only by Medicare.

^{*} p < .10.

^{**} p < .05.

^{***} p < .01.

Table 4. Effects of limited English proficiency on fecal occult blood test, Medicare beneficiaries 65 or older, California, 2001/2003

	Had fecal occult blood test in past year (odds ratio)			
Characteristics	All Medicare	Dual eligible	Medicare only	Medicare plus
Sample size	18,302	3,377	1,292	13,633
Language (ref = English only) Limited English proficient Bilingual	.57* .94	.34* 1.10	2.94* 1.10	.96 .90
Interaction LEP & race/ethnicity LEP*Latino LEP*Asian	1.20 2.31**	1.75 5.22**	.19* .64	
Race/ethnicity (ref = white) Latino Asian Black or African American American Indian/Alaska native Other single race/multiracial	.88 .63*** 1.23* .98	.92 .49** 1.04 .85	.85 .17** 3.12*** 1.50	.81 .74** 1.24 .99 1.01
Insurance (ref = Medicare only) Medicare and Medicaid Medicare plus other Rural (ref = urban)	1.08 1.27** .90*	<u></u> .68**	 1.00	 .94
Female	.93	.86	.97	.95
Married (ref = not married)	1.17***	1.07	1.37	1.18***
Income as % poverty (ref $\geq 300\%$ FPL) <100% 100-199% 200-299% High school graduate (ref = not grad) Age (years)	1.05 1.02 .99 1.11 .99**	1.12 .92 .90 1.09 .98***	.56 1.45 1.47 1.21 .99	1.03 1.01 .97 1.10 1.00
Health status (ref = excellent) Very good Good Fair Poor	.99* .88* .80** .78**	.93 .63** .61** .72	.74 1.02 .95 .90	1.01 .92 .84* .69***
Chronic conditions	1.06**	1.09	1.07	1.06*
Usual source of care (ref = none) Safety net Not safety net	4.62*** 4.00***	2.95** 3.15***	8.47*** 7.37***	4.96*** 3.98***
Year of survey (ref $= 2003$)	1.33***	1.05	1.76***	1.38***

Predicted Values

Because the main LEP and LEP and race/ethnicity interaction effects were sometimes in opposite directions, we estimated predicted values that combined both main and interaction effects to show the effects for LEP Latinos and Asians compared with those who were bilingual or English speakers only (Table 5). The great majority of

Medicare older adults were predicted to have a usual source of care, although LEP seniors had lower predicted values than bilingual and English-only seniors. Latino LEP seniors had the lowest probability of having a usual source of care. Among the dual eligibles, LEP seniors had lower predicted values of having a usual source of care than bilingual older adults, but

^{*} p < .10.

^{**} p < .05.

^{***} p < .01.

Table 5. Predicted values of measures of access to care by English proficiency and race/ethnicity, Medicare beneficiaries 65 or older, California, 2001/2003

	All Medicare	Dual eligible	Medicare only	Medicare plus
Has usual source of care				
Limited English proficiency	93.1	94.0	87.2	94.0
LEP Latino LEP Asian	91.2 95.9	92.0 97.0	81.9 96.2	94.5 94.8
Bilingual English only	96.3 96.7	97.5 94.8	87.3 89.9	97.2 97.6
Had mammogram in past two ye	ears ^a			
Limited English proficiency	68.3	70.6	54.1	68.9
LEP Latino LEP Asian	75.6 58.2	78.3 64.5	54.1 42.8	67.7 61.1
Bilingual English only	79.9 79.6	70.8 70.8	74.7 62.8	84.1 82.7
Had fecal occult blood test in pa	ıst year ^b			
Limited English proficiency	18.5	18.1	14.8	22.2
LEP Latino LEP Asian	15.7 21.7	13.7 23.4	10.5 7.6	21.5 21.1
Bilingual English only	23.9 27.2	22.7 22.9	20.7 22.7	24.6 28.3

had comparable predicted values as older adults who speak English only. For those with Medicare plus private supplementary coverage, LEP seniors also had lower predicted values than the other language groups, although for this coverage source, LEP Latinos and LEP Asians had comparable predicted values. LEP seniors with only Medicare coverage had lower predicted values than the other coverage sources, and LEP and bilingual seniors had lower predicted values than the English-only seniors. However, Latino LEP seniors with Medicare only were predicted to have the lowest probability of having a usual source of care. LEP status also had a relatively strong association with lower predicted values of receipt of mammography for all Medicare beneficiaries, Medicare plus supplemental coverage, and Medicare-only groups. Among those who were dual eligibles, LEP women had similar predicted mammography rates as bilingual and English-only women. Having both Medicaid and Medicare coverage appeared to benefit LEP Latinos: LEP Latino women were predicted to be more likely to have a mammogram than all other language groups. However, LEP Asian women were predicted to be the least likely to

be screened for breast cancer by mammography, and this held true across all coverage types.

LEP status was associated with lower predicted values of fecal occult blood tests. LEP Latinos who were dual eligibles were predicted to be substantially less likely to have a test than bilingual or English-only dual eligibles. LEP seniors with only Medicare had the lowest predicted value of receipt of an FOBT. Among this coverage group, LEP Asians were predicted to be the least likely to receive an FOBT.

It is noteworthy that LEP seniors who were dual eligibles were predicted to be just as likely to have a usual source of care, and more likely to have a mammogram, than LEP seniors who had Medicare and private supplemental coverage. LEP seniors with no public or private supplemental coverage (Medicare only) were predicted to fare the worst in all access measures.

Discussion

These analyses indicate that language barriers impede older adults' access to health care, even though all have health insurance coverage through Medicare. The evidence suggests that

^a Females with no breast cancer diagnosis.

^b No colorectal cancer diagnosis.

measures of health care access, such as having a usual source of care and receiving a mammogram or FOBT, are better for dual-eligible LEP seniors than for LEP seniors covered by Medicare only. Even compared to seniors with some form of private supplementary coverage, seniors with Medicaid are predicted to have comparable proportions with a usual source of care and even higher proportions with a recent mammogram.

It is therefore worth discussing differences that exist between Medicare beneficiaries who are enrolled in Medicaid and those who are not. Those on Medicaid are poorer than those who are not—a condition that ought to reduce access to care. However, Medicaid pays Medicare deductibles and coinsurance, which should improve access for dual-eligible individuals. Private supplemental policies often cover a portion of Medicare cost sharing as well.

Factors that might differentially improve access for LEP seniors are the requirement by California's Medicaid program that language services be available and its practice to foster interpretation services, while Medicare and private insurers do not take such steps. Federal civil rights rules require that Medicaid health care providers offer free language assistance, but they exclude from such requirements physicians who provide only Medicare services. Although California's Medicaid program does not directly reimburse for language assistance services, a number of Medicaid initiatives have focused on language aid. In California, Medicaid managed care plans are required to offer interpretation services and are monitored in their efforts; plans pay for interpreters, make contractual arrangements for interpretation, and/or train providers (Youdelman and Perkins 2002). The California Medical Association and the state's association of community health centers both have developed initiatives to bolster language assistance to Medicaid patients (California Medical Association 2004; California Primary Care Association).

There could be a number of other reasons why language barriers are less severe for Medicare beneficiaries who also are covered by Medicaid compared to those who are covered by Medicare only. This may be because Medicaid beneficiaries are more likely to use community health centers and safety-net hospitals that have been the traditional sites serving low-income seniors. These sites may provide a more comprehensive array

of services, and also may serve a higher volume of LEP patients than might be found in individual doctors' offices. Nevertheless, even with controls for the safety net as a usual site of care for the cancer screening measures, LEPs with both Medicaid and Medicare in this study were better off than those with only Medicare. While we cannot demonstrate conclusively that this was due to greater availability of language services by California's Medicaid program, it is a reasonable explanation.

As noted earlier, federal civil rights policy requires that most health care providers make interpretation services available to LEP patients. But the lack of reimbursement for language services has been a stumbling block, perhaps in private physicians' offices particularly. The American Medical Association has strongly opposed "allowing the burden of funding written and oral interpretation services for limited English proficiency patients to fall on physicians" (Landers 2000; Hawryluk 2002). And physicians have noted that the costs for a professional interpreter sometimes may exceed insurance reimbursements for a visit. Although professional telephone interpreter services may offer a lower cost option to physicians, such services still incur additional unreimbursed costs that may discourage physicians from treating LEP patients.

In recognition of the additional services needed, the federal government could improve access for LEP Medicare beneficiaries by providing Medicare payments for interpretation services or increasing provider payments when patients are LEP (Ku and Flores 2005). This would help health care providers—both safetynet providers and private physicians-extend language services to LEP patients more completely. In addition, such policies might have repercussions beyond Medicare, since other insurers, including private insurance companies and state Medicaid programs, often adopt Medicare payment methods. At the state level, California could follow the example from other states in using federal funds through the Medicaid program to support language assistance services (Asian and Pacific Islander American Health Forum 2002).

Finally, efforts to improve language access among seniors need to recognize that language problems extend well beyond the Spanishspeaking population in California, and include seniors who speak diverse languages, including Mandarin, Cantonese, Korean, Vietnamese, and others. Although LEP Latino beneficiaries are most vulnerable in nearly all health care measures except mammography, LEP Asians not benefiting from language access programs in Medicaid programs were more at risk for not being routinely screened for breast cancer. The quality and cultural competency of language assistance services also must be considered since cultural attitudes may play a large role in cancer screening for Asians and Latinos (McGarvey et al. 2003).

Our study is a first step in examining some basic measures of health care access for LEP Medicare seniors. We did not examine the number of physician visits, the quality of medical care received, or patients' satisfaction with their care if and when they achieved access. These measures require more comprehensive clinical information on the patient's disease diagnosis, disease severity, and process of care to evaluate the extent to which language barriers impede utilization and quality of health care; such information was not available in the survey data. Other research indicates that language barriers increase the risk of miscommunication between patients and clinicians. This can lead to improper diagnoses (Flores et al. 2003), excessive or unnecessary laboratory testing (because the physician cannot understand reported symptoms) (David and Rhee 1998), inappropriate treatments (e.g., excessive intubations of asthmatic children) (LeSon and Gershwin 1995), poor treatment compliance (because the patient did not understand how to use prescriptions or when to return for follow-up) (Manson 1988), and patient dissatisfaction (Baker, Hayes, and Fortier 1998).

There is a substantial body of research on racial and ethnic disparities in medical care treatment and quality and it seems likely that some of these disparities, particularly for Latino or Asian patients, are attributable to language barriers (Institute of Medicine 2002). Our descriptive findings of CHIS 2003 supports this: compared to bilingual and English-only speakers, LEP seniors are the most likely to report difficulty understanding their doctor during their last visit (data not shown). It is hard to imagine how clinically appropriate medical care can be delivered to older adults if providers cannot communicate effectively with their patients because of language differences.

This study demonstrates that language barriers should be of concern to those establishing policies for Medicare. In light of the demographic trends showing growth in both the immigrant and the older adult populations, these concerns will become more pronounced in the coming years. Federal civil rights policies already have established that providers are obligated to offer interpreter services to their LEP patients. Medicare payment policies should come into concordance with our civil rights policies to help LEP beneficiaries gain access to language-appropriate medical care, and to ensure that patients of all national origins can gain access to good quality care.

Notes

The authors are grateful to the Commonwealth Fund, which provided primary funding for this project. Data collection for the California Health Interview Survey was funded by a consortium of funding agencies. We received additional support from the UCLA Center for Health Improvement in

Minority Elders/Resource Centers for Minority Aging Research; the National Institutes of Health/National Institute of Aging, under grant AG-02-004 (Drs. Ponce and Cunningham); and the National Cancer Institute under grant 1 K07 CA100097 (Dr. Ponce).

References

American FactFinder. 2000. Census 2000 Summary File 3 data. Washington, D.C.: U.S. Census Bureau.

Andrulis, D., N. Goodman, and C. Pryor. 2002. What a Difference an Interpreter Can Make: Health Care Experiences of Uninsured with Limited English Proficiency. Boston: The Access Project. Asian and Pacific Islander American Health Forum. 2002. Federal Funding for Language Assistance Services for Limited English Proficient Health Care Consumers. Available at: http://www.apiahf.org Accessed Jan. 20, 2006.

Baker, D. W., R. Hayes, and J. P. Fortier. 1998. Interpreter Use and Satisfaction with Interpersonal

- Aspects of Care for Spanish-Speaking Patients. *Medical Care* 36(10): 1461–1470.
- Baker, D. W., R. M. Parker, M. V. Williams, W. C. Coates, and K. Pitikin. 1996. Use and Effectiveness of Interpreters in an Emergency Department. *Journal of the American Medical Association* 275(10): 783–788.
- California Health Interview Survey (CHIS). 2002. CHIS 2001 Methodology Series: Report 2—Data Collection Methods. Los Angeles: UCLA Center for Health Policy Research.
- ——. 2005. CHIS 2001 Technical Report—Revised CHIS 2001 Weights. Los Angeles: UCLA Center for Health Policy Research.
- California Medical Association. 2004. Need an Interpreter? Sacramento: California Medical Association.
- California Primary Care Association. Undated. Providing Health Care to Limited English Proficient (LEP) Patients: A Manual of Promising Practices. Sacramento: California Primary Care Association.
- David, R. A., and M. Rhee. 1998. The Impact of Language as a Barrier to Effective Health Care in an Underserved Urban Hispanic Community. *Mount Sinai Journal of Medicine* 65(5–6): 393–397.
- Flores, G., M. Abreu, M. A. Olivar, and B. Kastner. 1998. Access Barriers to Health Care for Latino Children. Archives of Pediatric Adolescent Medicine 152(11): 1119–1125.
- Flores, G., M. B. Laws, S. J. Mayo, B. Zuckerman, M. Abreu, L. Medina, and E. J. Hardt. 2003. Errors in Medical Interpretation and Their Potential Clinical Consequences in Pediatric Encounters. *Pediatrics* 111(1): 6–14.
- Gillis, S., K. Guthrie, and J. Louie. 2004. Assessing the Capacity of California's Community Clinics. Community Clinics Initiative. San Francisco: Tides & The California Endowment.
- Ginsberg, C., V. Martin, D. Andrulis, Y. Shaw-Taylor, and C. McGregor. 1995. Interpretation and Translation Services in Health Care: A Survey of U.S. Public and Private Teaching Hospitals. Washington, D.C.: National Public Health and Hospital Institute.
- Hawryluk, M. 2002. Doctors Shouldn't Pay for Translators. Interpreters' Fees Often Exceed Medicaid Payments for Office Visits. American Medical News Jan. 14.
- Institute of Medicine. 2002. *Unequal Treatment:* Confronting Racial and Ethnic Disparities in Health Care. Washington, D.C.: National Academy Press.
- Ku, L., and G. Flores. 2005. Pay Now or Pay Later: Providing Interpreter Services in Health Care. *Health Affairs* 24(2): 435–444.
- Ku, L., and T. Waidmann. 2003. How Race/Ethnicity, Immigration Status and Language Affect Health Insurance Coverage, Access to Care and Quality

- of Care among the Low-Income Population. Washington, D.C.: Kaiser Commission on Medicaid and the Uninsured.
- Landers, S. J. 2000. Doctors Resent Being Forced to Find, Pay for Interpreters. American Medical News Nov. 20.
- Lee, L. J., H. A. Batal, J. H. Maselli, and J. S. Kutner. 2002. Effect of Spanish Interpretation Method on Patient Satisfaction in an Urban Walk-in Clinic. *Journal of General Internal Medicine* 17(8): 641–645.
- LeSon, S., and M. E. Gershwin. 1995. Risk Factors for Asthmatic Patients Requiring Intubation. I. Observations in Children. *Journal of Asthma* 32(4): 285–294.
- Manson, A. 1988. Language Concordance as a Determinant of Patient Compliance and Emergency Room Use in Patients with Asthma. *Medical Care* 26(12): 1119–1128.
- McGarvey, E. L., G. J. Clavet, J. B. Johnson II, A. Butler, K. O. Cook, and B. Pennino. 2003. Cancer Screening Practices and Attitudes: Comparison of Low-Income Women in Three Ethnic Groups. *Ethnicity and Health* 8(1): 71–82.
- Perez-Stable, E. J., A. Napoles-Springer, and J. M. Miramontes. 1997. The Effects of Ethnicity and Language on Medical Outcomes of Patients with Hypertension or Diabetes. *Medical Care* 35(12): 1212–1219.
- Ponce, N. A., S. A. Lavarreda, W. Yen, E. R. Brown, C. DiSogra, and D. Satter. 2004. Translation Methodology in the California Health Interview Survey: Challenges in Language Translation for a Major Survey. *Public Health Reports* 119: 1–18.
- Ponce, N., and L. Penserga. 2002. Language Access in Health: Why the Policy and Practice Inertia? *Harvard Health Policy Review* 3(2): 47–53.
- Presidential Executive Order 13166. 2000. Improving Access to Services for Persons with Limited English Proficiency. Federal Register 65: 50121.
- Schmidley, D. 2003. The Foreign-Born Population in the United States: March 2002 (P20-539).Washington, D.C.: Department of Commerce, U.S. Census Bureau.
- Tocher, T. M., and E. Larson. 1998. Quality of Diabetes Care for Non-English-Speaking Patients. A Comparative Study. Western Journal of Medicine 168(6): 504–511.
- U.S. Department of Health and Human Services, Office of Civil Rights. 2003. Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition against National Origin Discrimination Affecting Limited English Proficient Persons. Federal Register 47311–47323.
- Youdelman, M., and J. Perkins 2002. Providing Language Interpretation Services in Health Care Settings: Examples from the Field. New York: Commonwealth Fund.