

Low Income Parents' Reports of Communication Problems with Health Care Providers: Effects of Language and Insurance

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SYNOPSIS

Objectives. This study examines how parental reports of communication problems with health providers vary over a wider range of characteristics of low income children than considered in previous studies.

Methods. Data were drawn from the 1999 and 2002 National Survey of America's Families. Communication problems, insurance type, socioeconomic characteristics, health factors, and provider type were examined. Data were analyzed using bivariate and multivariate techniques.

Results. Bivariate analysis identified that the parents of 24.4% of low income children and 36.4% of publicly covered low income children with a Spanish interview reported poor communication with health providers. Coefficients from regression analysis suggest that, controlling for covariates, foreign-born parents with a Spanish interview were 11.8 percentage points ($p < 0.01$) more likely to report communication problems than U.S.-born parents with an English interview. Among low income publicly covered children with a Spanish interview, regression analysis suggests that parents of children who used clinics or hospital outpatient departments as their usual source of care were 9.5 percentage points ($p < 0.05$) more likely to report communication problems compared with those whose usual source of care was a doctor's or HMO office.

Conclusions. Implementing policies to improve communication barriers for low income children, particularly those with foreign-born parents whose native language is not English, may be necessary to reduce health disparities relative to higher income children across a variety of health domains including utilization, satisfaction, and outcomes. Focusing attention on the availability of professional translation services in clinics or hospital outpatient departments may be a cost-effective strategy for reducing communication problems for publicly insured children.

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Increasing the proportion of individuals who report that their health care providers have satisfactory communication skills is a specific goal of *Healthy People 2010* (Objective 11.6).¹ Good communication between parents and their children's health care providers is essential in order to allow the provider access to information necessary to assess health issues facing the child, and to allow the child's family to understand recommendations regarding prevention, treatment, and management of the child's health problems. Studies have demonstrated a positive effect of communication quality on patient satisfaction and health outcomes.²⁻⁴

Individuals with limited English proficiency and linguistic minorities (that is, those whose first language is Spanish or some language other than English) are at greater risk of communication problems with health providers, with negative consequences for appropriate service use and satisfaction with care.⁵⁻⁸ In addition, two cross-sectional studies of Medicaid enrollees found that on average, racial/ethnic and linguistic minorities reported worse experiences with health care than white, English-speaking individuals, and that linguistic minorities reported worse experiences than racial minorities.^{9,10} Spanish speakers constitute the largest linguistic minority group in the United States. They are more likely than black, white, or Latino individuals who primarily speak English to say that they had questions they did not ask the doctor, that the doctor did not listen to everything they said, and that they could not understand everything that the doctor told them.¹¹

Communication problems appear to compromise health outcomes for the children of Spanish-speaking Latinos. In one study, the lack of Spanish-speaking physicians, nurses, and interpreters was reported by one-quarter of Latino parents as the reason for deferring medical treatment for their child.⁶ Another study found a "dose-response" relationship between children's health outcomes and the degree to which parents are limited in English proficiency (LEP), and that even after multivariate adjustment, limited parental English proficiency was associated with significantly greater odds of a child not receiving needed medical care.¹² In addition, children from Spanish-speaking families are less likely to have a usual source of health care.¹³

Despite the increasing focus on access barriers due to language, there are gaps in the existing literature, some of which we attempted to address in the current study. The purpose of this research is two-fold. First, we demonstrate the importance of a broader range of covariates than considered in previous studies in order to further understand which subgroups of low income families experience greater communication

problems. We include the mental health status of the child's primary parent, which we hypothesize to be negatively correlated with communication, as well as a set of interaction terms for the parent's language and nativity, which we hypothesize will show that foreign-born parents who are Spanish-speaking report worse communication than other parents. Second, we narrow the analysis to children who have been a focus of public policy—low income publicly insured Latino children with a Spanish-speaking parent—in order to identify provider types and other characteristics that correlate with better or worse reports of communication.

METHODS

Data source/study population

We used data from the second and third rounds of the National Survey of America's Families (NSAF), conducted in 1999 and 2002, to assess the extent of and changes in language barriers for low income children. The NSAF is a national household survey providing information on more than 100,000 children and adults and it is representative of noninstitutionalized civilian residents of the United States younger than 65 years old. The survey oversamples the low income population (defined as less than 200% of the federal poverty level [FPL]) in 13 states and the nation as a whole. The NSAF collects detailed information from the primary parent—i.e., the adult in the household with the most knowledge regarding the health care and education of up to two children in the household. The study sample for this analysis includes children from zero to seventeen years of age from low income families. After dropping less than 2% of the sample due to missing values, including a small number of individuals who were not asked about communication with a health provider since they reported no visits to a health provider in the past 12 months, the final analytic sample consisted of 25,485 children in 1999 and 2002. The final analytic sample for the subgroup of publicly insured children whose parent chose a Spanish interview consisted of 1,632 children.

Study measures

Dependent variable. The measure of communication barriers used in this study was derived from the NSAF survey question, in English or Spanish, asking the primary parent, "How often have your family's doctors or other health professionals listened to you carefully and explained things in a way you could understand during the last 12 months?" The NSAF question is based on items from the "communication composite" of the Consumer Assessment of Healthcare Providers

and Systems (CAHPS), for which testing has revealed good reliability and construct validity, and properties have been found to be similar for both the English and Spanish language versions.^{10,14-17} Consistent with previous research, we collapsed responses from a four-point scale indicating frequency so that those responding “never” or “sometimes” were classified as experiencing communication problems compared with those responding “usually” and “always.”

Covariates. We examined a number of characteristics of children and their parents that could affect communication with providers including interview language, primary parent’s birthplace, and the child’s insurance status. During the survey, the primary parent chose a language, English or Spanish, in which to conduct the interview. Consistent with previous research,^{18,19} we used this as a proxy for the primary language spoken at home. We created a set of interaction terms between the indicators for interview language and the parent’s birthplace: (1) U.S.-born with an English interview, (2) U.S.-born with a Spanish interview, (3) foreign-born with an English interview, and (4) foreign-born with a Spanish interview. We defined health insurance status variables as health insurance coverage at the time of the survey, classified into four mutually exclusive groups constructed in the following hierarchy: (1) the child is covered under an employer sponsored health insurance (ESI) plan, including military coverage; (2) the child is enrolled in Medicaid, the State Children’s Health Insurance Program (SCHIP), or a state plan; (3) the child is enrolled in a health insurance plan not included in the previous two categories; or (4) the child is uninsured.

Measures of health status included whether the child or the primary parent was in poor or fair health or had a functional limitation. For the primary parent, a mental health status indicator was also included, based on responses to five questions that reflected how the parent felt during the prior month—i.e., how often the parent felt downhearted or blue.

The child’s race and ethnicity were grouped into four categories: white non-Latino, black, Latino, and other non-Latino. Four categories of income provided a measure of the family’s cash income relative to the federal poverty level. The categories include: less than 50% of FPL, 50% to 99% of FPL, 100% to 149% of FPL, and 150% to 199% of FPL. Since families within the same category of FPL may differ in the availability of non-cash sources of support, and local areas differ in the relative cost of living, we included a separate indicator for whether the child’s family was experiencing economic hardship involving problems paying for food and rent. Family structure was defined both by an

indicator for three or more children in the household, as well as categories for none, one, or two parents in the household.

We defined the child’s usual source of health care by creating separate indicators for: (1) no usual source of care or emergency room as the usual source of care; (2) the usual source of care is any doctor’s office, including HMO offices, maintained by a doctor or a group of doctors working together; or (3) the usual source of care is a county or municipal clinic, school-based clinic, company/industrial clinic, military-base clinic, or a department or clinic located at or affiliated with a hospital.

Analysis

We used bivariate and multivariate analyses to assess relationships between parent’s communication problems with health providers and the characteristics of low income children. All analyses are weighted to adjust for the complex survey sample design. Many of the characteristics identified as related to communication problems in the bivariate analyses may also be related to each other (e.g., health insurance, language, nativity, education, and health). Therefore, we used multivariate analysis to allow for an examination of the independent effect of each characteristic on communication problems. The multivariate analyses are linear probability models (i.e., binary ordinary least squares models).^{20,21} In addition to the covariates specified, these models also included a series of dummy variables for four categories of children’s ages, each of the thirteen states over-sampled by the NSAF, and a dummy variable signifying the survey year. Estimation of a linear probability model for our binary dependent variable, as opposed to a logistic model, simplified the interpretation of marginal effects associated with our numerous interaction terms, which are the focus of this analysis.²² Coefficient signs from the linear probability models are consistent with those from the logistic models (data not shown). Sampling errors were calculated using replication methods appropriate to the design of the sample. We used a two-tailed test of significance with an alpha of 0.05 as our threshold for statistical significance, and weakly significant results are reported when $0.05 < p < 0.10$. Data were analyzed using Stata version 8.2.²³

RESULTS

Child and family characteristics: descriptive results

Table 1 presents mean values of the analysis variables, pooled over 1999 and 2002, for low income children and for low income publicly insured children with a

Table 1. Child and family characteristics, low income children and those with public health insurance: mean values, pooled 1999 and 2002

Variable	Percent of all low income children (n=25,503)	Percent of publicly covered low income children with Spanish interview (n=1,632)
Doctor does not listen or explain things carefully	24.4	36.4
Children's insurance status		
Employer-sponsored insurance	35.4	NA
Public	42.6	100.0
Other	3.6	NA
Uninsured	18.4	NA
Child's age		
0-3	22.8	31.7
4-5	12.1	13.8
6-12	40.8	39.5
13-17	24.3	15.1
Child's race and ethnicity		
White, non-Latino	44.7	NA
Black, non-Latino	24.5	NA
Latino	27.0	100.0
Other, non-Latino	3.8	NA
Child health status		
Fair/poor health	8.0	19.0
Has a functional limitation	12.5	9.9
Primary parent origin of birth		
Foreign-born	20.5	93.0
Primary parent nativity and interview language		
U.S.-born and English interview	78.5	NA
U.S.-born and Spanish interview	1.0	7.0
Foreign-born and English interview	6.8	NA
Foreign-born and Spanish interview	13.7	93.0
Primary parent health status		
Fair/poor health	22.6	41.0
Has a functional limitation	17.0	11.6
Poor mental health	25.1	28.0
Primary parent education		
No high school diploma or GED	25.9	63.5
High school diploma or GED	52.0	26.0
Degree beyond high school	22.1	10.5
Problems affording food or rent	48.2	55.1
Family income		
Income <50% FPL	17.7	27.2
Income 50%-99% FPL	26.0	35.6
Income 100%-149% FPL	27.9	23.8
Income 150%-199% FPL	28.4	13.4
Family structure		
No parents in household	6.0	1.6
One parent in household	41.8	32.0
Two parents in household	52.2	66.3
Three or more children in household	52.9	60.4
Year		
2002	48.4	60.7
Usual source of care		
Emergency room or no usual source of care	10.6	14.4
Clinic or hospital outpatient	33.7	63.3
Physician's office	55.1	22.3

SOURCE: Urban Institute tabulations of the 1999 and 2002 National Survey of America's Families.

NOTES: Low income children live in families with incomes less than 200% of the federal poverty level. All standard errors are less than 0.007 for all low income children and less than 0.021 for publicly covered low income children with Spanish interview.

NA = not applicable

FPL = federal poverty level

Spanish interview. Overall, almost one quarter (24.4%) of all low income parents reported that their child's provider "never" or only "sometimes" listened carefully and explained things in way that they could understand. Among these reports of inadequate communication, the vast majority (86.2%, data not shown) reported that the provider "never," as opposed to "sometimes," communicated adequately. The percentage reporting inadequate communication with providers for the low income publicly insured sample with a Spanish interview is 36.4. Reports of communication problems for low income children were 1.6 times that of children with family incomes greater than 200% of FPL; only about 15% of the higher income parents reported inadequate communication (data not shown.) Among the low income publicly insured sample with Spanish interviews, 93.0% had a foreign-born parent. Almost two-thirds (61.3%) of foreign-born parents in this subgroup were born in Mexico (data not shown).

Inadequate communication between parent and health care provider: bivariate results

Bivariate results indicating the prevalence of communication problems by sociodemographic and other characteristics are presented in Table 2. Tests of significance show differences in communication problems within a particular category of characteristics, although the prevalence of communication problems did not change significantly from 1999 to 2002 for children in different subgroups (statistical tests between years not shown). In each year, those with an English interview were less likely to report communication problems (less than one-quarter) than those with Spanish interview (approximately 40%).

Patterns of results by insurance type are consistent with prior research.¹⁹ Low income children who were uninsured had more communication problems than any other insurance type, with more than one-third of parents reporting communication problems with providers in each survey year. Less than 20% of parents whose children had employer-sponsored insurance (ESI) reported inadequate communication in each year, compared with approximately one-quarter of publicly insured children's parents who did report communication problems.

Notably within the low income sample, foreign-born parents who chose to conduct the interview in Spanish were nearly twice as likely to report inadequate communication compared with U.S.-born parents choosing an English interview. Parent's reports also varied significantly according to race/ethnicity, with approximately one-third of parents of Latino children reporting inadequate communication compared with

less than one-fifth of white non-Latino children's parents in each year.

Probability of reporting inadequate communication: linear regression results

Low income children of all insurance types. The regression results in Table 3 show the estimated change in the probability of reporting inadequate communication associated with specific characteristics of the child, the parent, and the child's family. Among all low income children, we found a strong association between having a parent who is foreign-born and communication problems, regardless of the interview language, after adjusting for other characteristics (Table 3, Model 1). Having a foreign-born parent who responded to the interview in English is associated with a 6.4 percentage point ($p=0.004$) increase in the probability of communication problems relative to those with a U.S.-born parent who was interviewed in English. However, having a foreign-born parent who responded to the interview in Spanish significantly worsens the problem, with an increase of 11.8 percentage points ($p<0.001$) in the probability of communication problems compared with U.S.-born parents interviewed in English.

Communication problems are significantly more common among the uninsured than among those with other insurance types. Being publicly insured rather than uninsured is associated with a 9.3 percentage point ($p<0.001$) reduction in the probability of reporting communication problems. Children who are in fair or poor health or who have a parent in fair or poor health are also more likely to experience communication problems, by 6.5 and 6.0 percentage points ($p<0.001$), respectively. Children whose parent has a poor mental health score face a 6.6 percentage point ($p<0.001$) increase in the likelihood of communication problems. Problems affording food and rent are associated with a 6.5 percentage point ($p<0.001$) increase in the probability of communication problems, while the coefficients associated with the four variables representing categories of income are insignificant.

Low income publicly insured children with Spanish interviews. Given that over one-third of publicly insured children with Spanish interviews face communication problems with providers (Table 1), we further analyzed whether there were any systematic patterns with respect to communication problems and the provider type for the child's usual source of care. Table 1 showed that although a majority (55.1%) of low income children in the overall sample rely on office-based physicians as their usual source of care, low income publicly insured children with Spanish interviews are far less likely to

Table 2. Inadequate communication between parent and health care providers: bivariate means by characteristics of low income children in 1999 and 2002

	1999 Percent	2002 Percent
Interview language		
English ^a	22.6	20.8
Spanish	41.6 ^b	38.5 ^b
Children's insurance status		
Employer-sponsored insurance ^a	19.6	19.1
Medicaid/State/CHIP	25.6 ^b	23.5 ^b
Other	23.0	21.6
Uninsured	34.7 ^b	34.2 ^b
Child's age		
0–3 years	22.8	21.6
4–5 years	26.5	22.3
6–12 years	26.5	24.3
13–17 years ^a	24.3	24.7
Child's race and ethnicity		
White, non-Latino ^a	19.4	18.9
Black, non-Latino	24.8 ^c	22.0
Latino	34.6 ^b	32.2 ^b
Other, non-Latino	31.3 ^c	24.9
Child health status		
Fair/poor health	40.2 ^b	36.8 ^b
Excellent, very good, good health ^a	23.9	22.6
Has a functional limitation	28.5	27.4 ^c
No functional limitation ^a	24.7	23.2
Primary parent nativity and interview language		
U.S.-born with Spanish Interview	37.4 ^c	30.3 ^d
U.S.-born with English Interview ^a	21.8	20.4
Foreign-born with Spanish Interview	41.9 ^b	39.1 ^b
Foreign-born with English Interview	32.9 ^b	24.5
Primary parent health status		
Fair/poor health	35.2 ^b	35.0 ^b
Excellent, very good, good health ^a	22.3	20.3
Has a functional limitation	31.7 ^b	29.2 ^b
No functional limitation ^a	23.8	22.6
Good mental health ^a	22.1	20.9
Poor mental health	34.0 ^c	32.2 ^b
Primary parent education		
No high school or GED ^a	33.4	30.4
High school diploma or GED	22.6 ^b	21.6 ^b
Degree beyond high school	21.1 ^b	20.8 ^b
Problems affording food or rent		
Yes	30.2 ^b	28.5 ^b
No ^a	20.5	19.2
Family structure		
No parents in household	29.5	26.6
One parent in household	23.8	23.9
Two parents in household ^a	25.6	23.3
Two or fewer children in household ^a	25.1	24.5
Three or more children in household	25.1	23.1
Geographic location		
Lives in MSA ^a	26.3	24.1
Not in MSA	21.7 ^c	22.6

SOURCE: Urban Institute tabulations of the 1999 and 2002 National Survey of America's Families.

NOTE: Low income children live in families with incomes less than 200% of FPL.

^aIndicates reference category for tests of statistical significance. Each year is analyzed separately.

^b $p \leq 0.01$

^c $0.01 < p \leq 0.05$

^d $0.05 < p \leq 0.10$

MSA=metropolitan statistical area

do so. Among low income publicly covered children with Spanish interviews, only 22.3% report a doctor's office, including HMO offices, as their usual source of care; 63.3% report a clinic or hospital outpatient department, and 14.4% report no usual source of care or use a hospital emergency room as their usual source of care. (Due to rounding, these percentages do not add up to 100.)

To assess the importance of predictors of communication problems in the sample of publicly insured children whose parents were interviewed in Spanish, we estimated a multivariate model (Table 3, Model 2) and a model with additional dummy variables indicating the type of provider utilized as a usual source of care (Table 3, Model 3). In both models, we found that the overall patterns were similar to the full low

Table 3. Multivariate linear regression of insurance type and language on the probability of reporting inadequate communication, pooled 1999 and 2002, for low income children and low income publicly insured Latino children with Spanish interview

Variable	All low income children (n=25,503)		Publicly covered low income Latino children with Spanish interview (n=1,632)			
	Model 1		Model 2		Model 3 (includes provider type)	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Children's insurance status						
Employer-sponsored insurance	-0.091 ^a	-0.016	NA		NA	
Public	-0.093 ^a	-0.017	NA		NA	
Other	-0.070 ^b	-0.027	NA		NA	
Uninsured	ref.		NA		NA	
Child's race and ethnicity						
White, non-Latino	ref.		NA		NA	
Black, non-Latino	0.025	-0.016	NA		NA	
Latino	0.042 ^b	-0.020	NA		NA	
Other, non-Latino	0.063 ^c	-0.033	NA		NA	
Child health status						
Fair/poor health	0.065 ^a	-0.018	0.091 ^b	-0.040	0.088 ^b	-0.040
Functional limitation	0.009	-0.015	0.026	-0.067	0.025	-0.066
Primary parent nativity and interview language						
U.S.-born and English interview	ref.		NA		NA	
U.S.-born and Spanish interview	0.043	-0.052	NA		NA	
Foreign-born and English interview	0.064 ^a	-0.021	NA		NA	
Foreign-born and Spanish interview	0.118 ^a	-0.022	NA		NA	
Primary parent foreign-born vs. U.S.-born	NA		-0.019	-0.058	-0.026	-0.059
Primary parent health status						
Fair/poor health	0.060 ^a	-0.015	0.069	-0.042	0.068	-0.042
Functional limitation	0.027	-0.017	-0.024	-0.056	-0.019	-0.057
Poor mental health	0.066 ^a	-0.015	0.079	-0.052	0.073	-0.052
Problems affording food or rent	0.065 ^a	-0.010	0.087 ^b	-0.040	0.083 ^b	-0.040
Family income						
Income <50% FPL	ref.		ref.		ref.	
Income 50%–99% FPL	-0.004	-0.016	0.080 ^c	-0.046	0.081 ^c	-0.046
Income 100%–149% FPL	0.002	-0.016	0.083	-0.052	0.078	-0.053
Income 150%–199% FPL	0.003	-0.015	0.104 ^c	-0.059	0.099 ^c	-0.059
Primary parent education						
No high school diploma or GED	ref.		ref.		ref.	
High school diploma or GED	-0.024	-0.015	0.000	-0.045	0.005	-0.046
Degree beyond high school	-0.032 ^c	-0.017	0.043	-0.073	0.051	-0.072

continued on p. 213

Table 3 (continued). Multivariate linear regression of insurance type and language on the probability of reporting inadequate communication, pooled 1999 and 2002, for low income children, and low income publicly insured Latino children with Spanish interview

Variable	All low income children (n=25,503)		Publicly covered low income Latino children with Spanish interview (n=1,632)		Model 3 (includes provider type)	
	Model 1 Coefficient	Standard error	Model 2 Coefficient	Standard error	Coefficient	Standard error
Lives in MSA	0.002	-0.014	0.052	-0.095	0.058	-0.095
Year 2002 vs. 1999	-0.017	-0.011	-0.045	-0.039	-0.044	-0.059
Usual source of care						
Physician's office	ref.		ref.		ref.	
ER or no usual source of care					0.073	-0.065
Clinic or hospital outpatient					0.095 ^b	-0.040

SOURCE: Urban Institute tabulations of the 1999 and 2002 National Survey of America's Families

NOTES: Covariates also include dummy variables for four categories of child age, three categories of family structure (no parents in household, one parent in household, and two parents in household), three or more children in household, and each of the 13 states over-sampled by the NSAF. Low income children live in families with incomes less than 200% of FPL.

^ap≤0.01

^b0.01<p≤0.05

^c0.05<p≤0.10

ref. = reference category

NA = not applicable

FPL = federal poverty level

MSA = metropolitan statistical area

ER = emergency room

income sample multivariate estimates presented above. As with the full sample, there is no statistically significant evidence that parents' communication problems decreased from 1999 to 2002 in response to the introduction of numerous policies and guidelines for improving access for linguistic minorities in public insurance programs. Notably, children who usually visit a clinic or hospital outpatient department had a 9.5 percentage point increase (*p*=0.02) in communication problems relative to those who usually visit a doctor's office or HMO office.

CONCLUSIONS

These findings indicate that communication problems are more prevalent for children whose parents are foreign-born and for those whose parents choose to be interviewed in Spanish relative to other low income children. About 40% of the low income children with Spanish interviews reportedly had providers who never or only sometimes listened carefully and explained things in ways that the parent could understand. The growing share of the population that is foreign-born or has limited English proficiency suggests that com-

munication problems between parents and health care providers are likely to increase over time.

From 1990 to 2000, the share of the U.S. population aged five years or older who spoke English less than "very well" increased from 6.1% to 8.1%.^{24,25} While the linguistic capabilities of providers are likely to mirror changes among patients over time, having a doctor who speaks the same language as the patient is not always possible and numerous studies have shown that "ad hoc" interpreting by medical staff without training as professional translators leads to a significant increase in medical errors.²⁶⁻³¹

Improving access for linguistic minorities has been an increasing policy focus within public programs. Health care providers that receive federal funds, including payments for Medicaid or SCHIP, have been subject to Title VI of the Civil Rights Act of 1964, which requires the provision of language services such as interpreters or translated materials. However, due to concerns about linguistic barriers in health care settings, President Clinton issued Executive Order 13166 in 2000,³² containing guidelines for improving access to services provided by programs receiving federal assistance for individuals with limited English proficiency. Final

guidance to federal agencies was issued in June 2002.³³ Despite these policies, some providers are not aware that they can be reimbursed for the cost of language services for Medicaid and SCHIP recipients, and many states have not set up reimbursement mechanisms.³⁴ By 2002, Medicaid/SCHIP programs in just five states had established mechanisms to draw federal matching funds for translation services,³⁵ and by February 2004, only five additional states had done so. Among the thirty-seven non-Medicaid SCHIP programs in 2003, twenty-four programs covered translation services as an optional benefit,³⁶ but no information is available on how widely these services have been promoted or used. In addition, it was not until 2002 that regulations were established governing access to oral translation services free of charge for Medicaid enrollees enrolled in managed care.^{37,38}

In the long term, addressing these types of communication barriers in health care settings may require increasing the number of health care providers who are proficient speakers of Spanish and languages other than English, or providing bilingual staff with professional interpreter training. However, in the short term, having professional translation services available has been found to be an effective intervention to address communication between patients and health care providers rather than ad hoc interpreting by untrained staff or family. Some recent studies have found that the provision of professional interpreter services increases the use of appropriate health services among LEP individuals.³⁹

Low income uninsured children are at higher risk for experiencing communication problems—fully one in three had parents who said that health care providers never or only sometimes listened and explained things carefully. From this study, we cannot identify the mechanisms through which this effect is operating⁴⁰—it may be the case that there is more heterogeneity in the quality of providers serving uninsured children than among those serving other children, or that providers spend less time with them than with other patients, reducing the quality of communication. Understanding the root causes of the high prevalence of communication problems facing uninsured children is important since poor communication may compound other access problems that they experience.

We did not find a difference in the prevalence of communication problems by insurance status when we controlled for the characteristics of low income children and their families. However, given that such a large share of low income children rely on Medicaid or SCHIP coverage, improving access to professional translation services for them may have a considerable

impact on improving communication between parents and health care providers for children of primarily Spanish-speaking parents. As indicated above, a number of policy changes have been adopted since 2000 aimed at improving access to translation services for Medicaid and SCHIP enrollees. It will be important to track whether these policy changes have led to improvements in communication and whether gains differ according to the type of program in which the child is enrolled (i.e., in a managed care setting or in a separate SCHIP program) and with the particular reimbursement mechanism chosen by the state. It will also be important to monitor the extent to which providers are aware that they can be reimbursed for translation services and the extent to which they avail themselves of that option.

This analysis shows that, by 2002, access barriers for publicly insured children who are linguistic minorities had not yet been significantly affected by the recent changes in Medicaid/SCHIP policies, likely because these changes have been implemented in only a small number of states. To reduce communication barriers, states may need to establish billing codes that allow providers to claim reimbursement for language services under fee-for-service Medicaid, which likely would increase access to professional translation services.⁴¹ To address issues in Medicaid managed care, states should probably clarify that plans are required to provide language assistance services and assess the adequacy of capitation rates for plans that serve large numbers of LEP enrollees.⁴¹

Focusing attention on the availability of professional translation services in clinics, health centers, and hospital outpatient departments may be a cost-effective strategy for reducing communication problems for publicly insured children. We find that almost two-thirds (63%) of low income publicly insured children with a Spanish interview rely on a clinic, health center, or hospital outpatient department as their usual source of care and that these children are 10 percentage points more likely to experience communication problems than are the children who rely on a private doctor's office or HMO for care. Thus, targeting this population for improved language services could make a substantial dent in the communication problems experienced among this population.

Addressing communication issues for privately insured low income children is likely to be more challenging than addressing them for publicly insured children because a large share of privately insured children are covered through self-insured employer-based health care plans, which are more difficult to regulate. However, there may be scope for supplementing

private coverage with wraparound services reimbursed through Medicaid, such as translation services, at least for children who meet the eligibility criteria for Medicaid coverage.

This study also points to other subgroups of low income children who are at increased risk for experiencing communication problems with providers. In particular, we find that parents in poor or fair health status and those with poor mental health scores are more likely to report unsatisfactory communication with their children's providers. Other studies have shown that children whose parents have poor mental health scores experience greater unmet health care needs.⁴² In addition, many parents with poor mental health scores are reported as not receiving mental health services (data not shown). Thus, improving communication for this group may require treating the mental health problems of the parents.

Finally, parents with lower levels of educational attainment are more likely to say that providers are not explaining things or listening carefully. Low educational attainment also seems to be associated with perceiving greater difficulties with Medicaid and SCHIP enrollment processes.⁴³ Reducing communication problems for these families may depend on having culturally competent providers and outreach workers, and accessible materials that are understandable to those who have not finished high school.

This study has a number of limitations. First, our measure of language was not optimal. Ideally, we would have a measure of whether the parent primarily speaks a language other than English at home as well as a measure of the parent's degree of English proficiency. These have both been found to have a strong correlation with access barriers, and recent research by Flores and colleagues has revealed that parental LEP is a superior measure of the impact of language barriers on children's health and health care.¹² However, data from the same study suggests that our choice of low income families as a study population increases the likelihood that our measure of potential language barriers—a Spanish language interview—is associated with lower English proficiency, and is not merely a cultural marker. Second, differential response tendencies between racial/ethnic and language groups may cause measurement limitations in the reports of communication problems.⁴⁴ Third, our data does not allow us to observe information about provider race/ethnicity or language abilities, so we could not assess the extent to which communication problems vary according to concordance or discordance of these characteristics between the parent and provider. Fourth, many facets of communication experiences are not captured in our

data, e.g., conversational style, or verbal vs. nonverbal communication. Further data would be needed to assess the role that each plays in contributing to communication problems. Finally, our estimation approach may be affected by selection bias, both for insurance type and for provider type. As a result, findings that uninsured children are more likely to experience communication problems or that those relying on clinics and hospital outpatient departments experience greater communication problems may simply reflect the fact that these children are disadvantaged in ways that we have not controlled for in our multivariate analysis.

This paper shows that many low income parents report that they experience problems communicating effectively with providers. Such problems can lead to underutilization of appropriate health services, which in turn can lead to a health crisis and increase the potential for medical errors during a health crisis. Therefore, implementing policies that would improve communication for low income children, particularly those with foreign-born parents whose native language is not English, may be necessary for reducing health disparities relative to higher-income children across a variety of health domains including utilization, satisfaction, and outcomes.

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