

Access Barriers to Health Care for Latino Children

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Background: Latinos will soon be the largest minority group in the United States, but too little is known about major access barriers to health care for this group and whether these barriers result in adverse consequences.

Objective: To identify important access barriers to health care for Latino children, as cited by parents.

Design: Cross-sectional survey of parents of all 203 children coming to the pediatric Latino clinic at an inner-city hospital. Questions focused on barriers to health care experienced prior to receiving care at the Latino clinic.

Results: Parental ethnicity included Dominican (36%), Puerto Rican (34%), Central American (13%), and South American (11%). Only 42% of parents were American citizens, whereas 36% had green cards, and 13% had no documentation. Eight percent of parents and 65% of the children were born in the United States. Parents rated their ability to speak English as follows: very well/well, 27%; not very well, 46%; and not at all, 26%. The median annual household income was \$11 000; 40% of parents never graduated from high school, and 49% headed single-parent households. Forty-three percent of the children were uninsured. A sick child was routinely brought to hospital clinics by 56% of parents, to the emergency department by 21%, and to neighborhood health centers by 21%. When asked to name the single greatest barrier to health care for their children, parents cited language problems (26%), long waiting time at the physician's office (15%), no medical insurance (13%), and difficulty paying medical bills (7%). When parents were asked if a particular barrier had ever caused them not to bring their children in, transportation was cited by 21%;

not being able to afford health care, 18%; excessive waiting time in the clinic, 17%; no health insurance, 16%; and lack of cultural understanding by staff, 11%. Some parents who spoke little or no English reported that medical staff not speaking Spanish had led to adverse health consequences for their children, including poor medical care (8%), misdiagnosis (6%), and prescription of inappropriate medications (5%). Multivariate analyses of selected health outcomes using 7 independent variables showed that low family income was significantly associated with greater odds of a child's having suboptimal health status (odds ratio, 1.5; 95% confidence interval, 1.04-2.2) and an increased number of physician visits in the past year ($P < .04$), but reduced odds (odds ratio, 0.6; 95% confidence interval, 0.4-0.9) of the child's being brought to the emergency department for a routine sick visit. Children whose parents had resided in the United States for fewer than 8 years were at reduced odds (odds ratio, 0.5; 95% confidence interval, 0.2-0.9) for having spent a day or more in bed for illness in the past year.

Conclusions: Parents identified language problems, cultural differences, poverty, lack of health insurance, transportation difficulties, and long waiting times as the major access barriers to health care for Latino children. Language problems can result in adverse health consequences for some children, including poor medical care, misdiagnosis, and inappropriate medication and hospitalization. Low family income is an important independent risk factor among Latino children for suboptimal health and high utilization of health services.

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Editor's Note: This study provides valuable data on health care access for a rapidly growing population in the United States. Some of the problems, eg, language differences, are relatively easy to address. Others, eg, poverty, are much more difficult.

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LATINOS WILL surpass African Americans as the largest minority group in the United States by as early as the year 2005.¹ Estimates indicate that by 2050, Latinos will constitute

about one quarter of the American population.¹ The Latino population of the United States, at more than 28 million in 1996, is greater than the total population of most Latin American countries. Indeed, US Latinos are outnumbered by the total populations of only 5 Latin American nations: Mexico, Spain, Colombia, Peru, and Argentina.² Almost 11 million US Latinos—about 39% of the American Latino population—are children. United States pediatricians are likely to encounter greater numbers of Latino children in their practices, given that Latinos have the greatest fertility

PARTICIPANTS AND METHODS

DEFINITION

We use the term *Latino* to aggregately denote all persons living in the United States whose origins can be traced to the Spanish-speaking regions of Latin America, including the Caribbean, Mexico, Central America, and South America. Although *Hispanic* is still the official designation used by the federal government, we agree with others² that this term places narrow and undue emphasis on the European influence of Spanish colonialism. *Latino* is a more inclusive term that does not de-emphasize the crucial roles in Latin American history of indigenous Indian cultures and African slaves, and is the term being used increasingly by communities and professional groups.

SETTING

The Pediatric Latino Clinic at Boston Medical Center, Boston, Mass, was founded in the fall of 1995. The goal of the clinic is to provide bilingual, bicultural pediatric primary care services to the Latino children of the greater Boston area. Children are seen at the clinic regardless of their parents' ability to pay for services. The staff consists of bilingual attending physicians, nurses, and medical clerks. Most patients are self-referred, having found out about the clinic through relatives, friends, or medical receptionists. Several patients are also referred from physicians and nurses in other clinics at Boston Medical Center.

PARTICIPANTS

The study population consisted of all parents bringing their children to the Pediatric Latino Clinic during a 13-month period, from February 7, 1996, until February 20, 1997. Parents were questioned only about their experiences with the American health care system *prior* to their first visit at the Pediatric Latino Clinic. We thus excluded (1) newborns brought to the clinic for the first time, (2) children of recent immigrants who had never received health care in the United States, and (3) patients who had only been seen at the Pediatric Latino Clinic. Data collection was done by 2 bilingual Latina research assistants, so as to minimize linguistic, cultural, and gender problems. This study was approved by the institutional review board of Boston Medical Center. Oral consent was obtained from all study participants.

SURVEY INSTRUMENT

We interviewed parents using a survey consisting of 52 multiple-choice, open-ended, and Likert-scale questions. Surveys were administered orally in the language of the parent's choice, and the responses to each question were written down immediately. The Spanish version of the survey was a direct translation from the English version; the 3 bilingual authors (G.F., M.A., and M.A.O.) checked the Spanish version for accuracy, and any translation disagreements were settled by consensus among the 3 of us. The survey had been pilot tested shortly before the initiation of the study.

The first part of the survey was composed of questions on background sociodemographics, including

information about the family structure, parental employment, parental English proficiency, Latino subgroup (equivalent to national origin), and years of residence in the United States. Questions also were asked about the child's health status and use of health services. Results of the pilot study led us to place questions that were of a sensitive nature (concerning family income and citizenship) at the end of the survey. We found that participants were more likely to respond to these sensitive questions after a rapport with the interviewer was established, and if participants chose not to answer these questions, we at least were able to obtain other relevant survey information before having to terminate the interview.

The remainder of the survey consisted of questions on a wide variety of barriers experienced by parents in obtaining health care for their children, including problems with language, interpreters, finances, health insurance, cultural differences, clinic location, scheduling appointments, long waits to see physicians, inconvenient office hours, taking time off from work, discourteous staff, and not understanding explanations of illnesses or medications. Questions about barriers were asked in several formats: open-ended, multiple choice, and yes/no responses. We also asked whether the inability of the health care staff to speak Spanish had ever resulted in poor medical care, misdiagnosis, inappropriate medication, or inappropriate hospitalization.

English and Spanish versions of the survey are available on request from us.

DATA ENTRY AND ANALYSIS

Data were entered and bivariate analyses were done with Epi Info version 6.03.⁵ Multivariate analyses were done in a stepwise fashion by means of True Epistat⁶ for multiple logistic regression and SPSS for Windows (release 7.5)⁷ for multiple linear regression. Four outcome variables were examined by multiple logistic regression: use of the emergency department for routine sick visits, suboptimal health status (dichotomized as parental ratings of the child's overall health as poor, fair, or good vs excellent or very good), not having a regular physician, and having spent 1 or more days in bed (at home or in the hospital) in the past year for illness. Multiple linear regression was done to determine associations with the number of physician visits the child made in the past year for any reason. The following independent variables were examined in multivariate analyses: US citizenship, parental self-rated English-speaking ability (not very well/not at all vs very well/well), graduation from high school, insurance status of the child, the number of years the parent has lived in the United States (dichotomized as <8 years vs ≥8 years, only for those born outside of the United States), annual combined household income (categorized by the following descending quartiles: >\$22 800; \$15 201-\$22 800; \$7600-\$15 200; and <\$7600), and Latino subgroup. Multivariate analyses for Latino subgroups were done only for Dominicans and Puerto Ricans, because sample sizes were too small for meaningful analyses of other subgroups. Multivariate analyses were done separately for each of these 2 subgroups (dichotomized as Dominican vs not Dominican and Puerto Rican vs not Puerto Rican), because inclusion of both subgroups in the same model produced results that were too highly correlated.

rate of any ethnic group³ and triple the growth rate of the overall American population.²

Despite the size and rapid growth of the US Latino population, little is known about access barriers to health care for Latino children. In an extensive review of the literature on access barriers for Latino children, Flores and Vega⁴ found no published studies that focused on barriers to care as perceived by Latino parents. Previous work has been limited by frequent reliance on secondary data sets, the rarity of analysis by pertinent major Latino subgroups, an emphasis on adults, and infrequent attention to the importance of barriers associated with language and culture.⁴ The goal of this study, therefore, was to examine access barriers to health care for Latino children as perceived by their parents, with an emphasis on the roles of language and culture.

RESULTS

SOCIODEMOGRAPHIC CHARACTERISTICS

Study children were predominantly Dominican (36%; n = 77) and Puerto Rican (34%; n = 68). About 13% were from Central American subgroups (Salvadoran, 4% [n = 8]; Nicaraguan, 3% [n = 7]; Honduran, 3% [n = 6]; Guatemalan, 2% [n = 4]; and Costa Rican, 1% [n = 2]) and 11% from South American subgroups (Colombian, 5% [n = 11]; Peruvian, 3% [n = 5]; Bolivian, 2% [n = 3]; Ecuadorian, 1% [n = 2]; and Brazilian, 1% [n = 1]). Only 5% were of Mexican ancestry (n = 10), and 2% were of Cuban extraction (n = 3).

Participating parents averaged 34 years of age, and 92% were born outside of the United States (**Table 1**). Foreign-born parents had lived in the United States for a median of 8 years. Only 42% were US citizens, 36% were authorized residents, and 15% were undocumented residents or had expired visas. Only 27% of parents said that they spoke English very well or well, whereas 46% said that they spoke English not very well, and 26%, not at all. Almost 90% of parents said that Spanish was the language they were most comfortable speaking, but only 4% reported that they were most comfortable speaking English. About half of the parents were married (legally or in a common-law arrangement) and living with their spouse, and the remaining half were single parents, most frequently because of separation or divorce (29%). The interviewed person was predominantly the biological mother (84%). The highest levels of parental educational attainment were low: 40% had never graduated from high school, whereas about one third were high school graduates, 22% had attended 1 to 3 years of college, and only 5% had obtained a college degree.

Most (55%) of the study children were boys, with a median of 1 sibling (range, 1-5) and 5 persons living in the household (range, 2-20). Almost two thirds (65%) of the children were born in the United States. (Birth in Puerto Rico was considered outside of the United States.) The primary language spoken at home was Spanish for 86%, English for only 4%, and both for 10%. Among 179 children old enough to talk, the

Table 1. Selected Characteristics of 203 Parents or Legal Guardians

Variable	Finding
Age, y	
Mean ± SD	34.1 ± 8
Range	16-64
Born outside United States, %*	92
Duration of residence in United States†	
Median	8 y
Range	1 mo-40 y
Citizenship,‡ %	
US citizen	42
Green card or legal permanent resident	36
Undocumented	13
Temporary visa	5
Refugee or political asylee	3
Expired or overstayed visa	2
Self-rated ability to speak English,‡ %	
Very well	14
Well	13
Not very well	46
Not at all	26
Language most comfortable speaking, %	
Spanish	88
English	4
Spanish and English	7
Portuguese	1
Marital status,‡ %	
Married, lives with spouse	41
Separated or divorced	29
Never married	17
Common-law marriage	9
Widowed	3
Interviewed person's relationship to child,‡ %	
Biological mother	84
Biological father	10
Grandmother	4
Stepparent	1
Foster mother	1
Group home supervisor	1
Highest level of education completed,‡ %	
≤6th grade	15
7th-11th grade	25
High school graduate	34
1-3 y of college	22
College graduate or postgraduate work	5

*Birth in Puerto Rico considered outside United States (contiguous 50 states).

†Among those born outside United States.

‡Percentages do not sum to 100% because of rounding.

language they were most comfortable speaking (as reported by their parents) was Spanish for 53%, English for 22%, and both for 13%.

A large proportion (43%) of the children were uninsured (**Table 2**); more than half had some form of public insurance, but only 4% had private insurance. Study participants and their families were severely impoverished, with a median annual combined household income of \$11 000 and a range of \$0 to \$38 000. More than one third of the children lived in families with annual combined incomes of less than \$10 000, 69% lived in families with annual combined incomes below the 1995 federal poverty level for a family of 4 (\$15 569), and 82% lived in

Table 2. Insurance Status and Family Income for the 203 Study Children*

Variable	Finding
Insurance, %	
Uninsured	43
Public	53
Private	4
Annual combined family income, \$	
Median	11 000
Range	0-38 000
Annual combined family income, %	
\$0-\$4999	6
\$5000-\$9999	32
\$10 000-\$14 999	24
\$15 000-\$19 999	20
\$20 000-\$24 999	10
≥\$25 000	8

*Fourteen parents or guardians preferred not to respond to questions regarding income.

families with with annual combined incomes of less than \$20 000.

HEALTH STATUS AND USE OF HEALTH SERVICES

Only 41% of the children were reported to be in excellent (28%) or very good (13%) health; 44% were in good health, and 16% were in fair (15%) or poor (1%) health. Most (65%) had not spent any days in bed during the past year for illness, but 28% had spent 1 to 7 days in bed for illness in the past year, and 7% had spent more than a week in bed for illness in the past year. The majority (87%) had a regular physician, had visited their physician during the past year (27%), and were reported to be up-to-date on their age-appropriate required vaccinations (94%). Parents reported that their child had made a median of 3 visits to a physician in the last year (range, 1-24 visits). Parents most often took their children to hospital clinics (56%) or neighborhood health centers (21%) for routine sick visits, but rarely to a private physician's office (3%). A substantial proportion (21%) of Latino children were brought to the emergency department for routine sick visits.

ACCESS BARRIERS TO HEALTH CARE

More than one quarter of parents (26%) said that language problems were the single greatest barrier to getting health care for their child. Specifically, 15% of all parents said that the greatest obstacle was physicians and nurses who do not speak Spanish, and 11% cited a lack of interpreters. A long wait at the physician's office was reported as the greatest barrier by 15%, 13% mentioned the lack of medical insurance, 7% cited difficulty paying for medical bills, and 6% identified arranging transportation. Less than 5% of parents cited 1 of the following as the single greatest obstacle: difficulty taking time off from work (4%), difficulty making appointments (4%), inconvenient office hours (2%), rude or discourteous physicians or nurses (2%), difficulty understanding expla-

nations of their child's illness (2%) or of how to give medication (2%), and physicians and nurses not understanding the parent's culture (1%). Twenty percent of the parents cited no single greatest barrier to obtaining medical care for their child. Several adverse health consequences of medical staff not speaking Spanish were reported by parents who spoke little or no English. Poor medical care was cited as an adverse consequence by 8% of parents; another 6% said that their child was misdiagnosed, and 5% mentioned that their child was given inappropriate medications. Only 1% of parents reported that their child was hospitalized inappropriately because physicians or nurses did not speak Spanish.

Parents identified several barriers to care that had caused them not to bring their child in for medical visits in the past. Transportation problems were reported most often (21%). Among the 42 parents citing transportation problems, the lack of a car was identified as the most frequent difficulty (62%); excessive distance from clinics and the expense or inconvenience of public transportation were also mentioned often. Other frequently cited barriers that had caused parents not to bring their child in included not being able to afford health care (18%), excessive waits to see the physician (17%), lack of health insurance (16%), and, among 191 parents or legal guardians who were employed, inconvenient clinic hours (14%). Difficulty making appointments was mentioned by 13% of parents; specific difficulties mentioned included excessive waiting time on the telephone when trying to schedule appointments, excessive intervals until the next available appointment, and the inability of secretaries to speak Spanish. Some parents (11%) mentioned that clinics were located too far away from where they lived. A surprisingly high proportion of parents said that problems with culture and language had caused them not to bring their child in for health care in the past: 11% mentioned as a cause that physicians and nurses did not understand the parent's culture, and 6%, that the staff did not speak Spanish. Only 2% of parents mentioned that problems with immigration had caused them not to bring their child in for care.

MULTIVARIATE ANALYSES

A lower annual combined household income was significantly associated with several health outcomes in the multivariate analyses (**Table 3** and **Table 4**). Each quartile drop in household income was associated with a 1.5-times greater odds of suboptimal health status (Table 3) and a greater number of visits to the physician in the past year (Table 4). Low family income, however, was associated with a reduced odds (0.6) of the child being brought to the emergency department for routine sick visits. Family income did not have a significant effect on having a regular physician or the number of days spent in bed for illness during the past year.

Having a parent who had resided in the United States for fewer than 8 years was associated with reduced odds (0.5) of spending 1 or more days in bed for illness in the past year and was the only statistically significant predictor for this outcome. Recent parental immigration, however, was not a significant predictor for any of the

Table 3. Multiple Logistic Regression Analyses Predicting 4 Health Outcomes Among 203 Latino Children

Variable	Odds Ratio (95% Confidence Interval)			
	Model 1: Suboptimal Health Status*	Model 2: Use of Emergency Department for Routine Sick Visits	Model 3: Has No Regular Physician	Model 4: Spent ≥1 d in Bed in Past Year for Illness
Low family income†	1.5 (1.04-2.2)	0.6 (0.4-0.9)	1.0 (0.6-1.9)	1.1 (0.8-1.6)
Parent speaks English not very well or not at all	1.6 (0.7-3.5)	0.7 (0.3-1.7)	1.6 (0.4-6.7)	1.8 (0.8-4.2)
Parent not at least a high school graduate	1.0 (0.7-1.5)	0.8 (0.3-1.8)	1.4 (0.7-2.6)	0.7 (0.3-1.5)
Child uninsured	1.2 (0.6-2.3)	0.9 (0.4-2.0)	1.3 (0.5-3.7)	1.4 (0.7-2.8)
Parent has lived <8 y in United States	1.1 (0.6-2.3)	2.2 (0.9-5.3)	1.7 (0.6-5.0)	0.5 (0.2-0.9)
Parent not a US citizen	1.5 (0.6-3.5)	0.6 (0.2-1.6)	1.7 (0.4-6.7)	0.8 (0.3-1.9)
Latino subgroup				
Dominican	0.6 (0.3-1.2)	1.7 (0.7-4.2)	1.0 (0.3-3.1)	1.1 (0.5-2.5)
Puerto Rican‡	1.3 (0.5-3.9)	1.2 (0.3-4.1)	0.1 (0.0-1.1)	0.6 (0.2-1.9)

*Parental ratings of child's overall health as poor, fair, or good (vs excellent or very good).

†By descending quartiles of annual combined household income.

‡Results are from separate analysis done to evaluate effect of Latino subgroups.

other 4 outcomes, although there was a trend toward an increased odds of using the emergency department for routine sick visits (odds ratio, 2.2; 95% confidence interval, 0.9-5.3).

Latino subgroups, parental English-speaking ability, parental education, insurance status of the child, and parental citizenship were not found to be significant independent predictors for any of the 5 health outcomes.

COMMENT

A key finding in this study was that language problems are the single greatest barrier to health care access for Latino children. More than one quarter of the parents cited language problems as the most important access barrier. Almost three quarters of the parents spoke English not very well or not at all. Other studies in different clinical settings have found that language problems were cited as barriers to care by comparably high proportions of Latino parents, ranging from 26% for parents of asthmatic children⁸ to 35% in those bringing their children to an urban emergency department.⁹ Furthermore, we found that language problems can have serious consequences for the health of Latino children. About 1 of every 16 parents had not brought their child in for medical care because of language problems, and several parents reported that language problems had caused their child to receive poor medical care, misdiagnoses, inappropriate medications, and even inappropriate hospitalization.

Remedies exist for the specific language problems identified by Latino parents in our study. The inability of staff to speak Spanish can be addressed by hiring more bilingual staff at all levels, including clerks, medical assistants, nurses, and physicians. Medical Spanish classes are also becoming increasingly available in medical schools, clinics, and hospitals, and they afford an ideal opportunity for current staff to enhance communication with Latino families. Problems related to the lack of medical interpreters can be overcome with increased

Table 4. Multiple Linear Regression Analysis Predicting the Number of Physician Visits in the Past Year for Any Reason Among 203 Latino Children*

Variable	Standardized Coefficient	P
Low family income†	0.16	<.04
Child's age	-0.16	<.04
Parent speaks English not very well or not at all	-0.03	NS
Parent not at least a high school graduate	-0.004	NS
Child uninsured	0.07	NS
Parent has lived <8 y in United States	0.05	NS
Parent not a US citizen	-0.04	NS
Latino subgroup		
Dominican	0.03	NS
Puerto Rican	0.19	NS

*r² = 0.068. NS indicates not significant.

†Descending quartiles of annual combined household income.

training and recruitment and via partnerships with local Latino communities.

Cultural differences were found to be a surprisingly important access barrier for Latino children. Although only 1% of parents cited cultural differences as the single greatest barrier to health care, about 1 in 9 parents said that they had not brought their child in for care in the past because medical staff did not understand Latino culture. We did not have the opportunity to identify the specific cultural differences that parents perceived as access barriers. Normative cultural values that can affect clinical care have been identified among Latinos,¹⁰⁻¹² including the concepts of *simpatía* and *respeto*. In *simpatía*, a value is placed on politeness, pleasantness in the face of stress, and avoiding hostile confrontation.¹⁰⁻¹² Because many Latinos therefore expect the physician to have a positive attitude, the relatively neutral attitude of many physicians may be perceived negatively. In *respeto*, Latinos view physicians as authority figures to be awarded respect, and expect reciprocal respect from the physician, particularly if the physician is younger than the parent.^{11,12} Failure of the physician to use terms of respect and elicit the parent's concerns can

result in negative perceptions and decreased satisfaction with care.

Some limitations of our study should be noted. The parents and children who participated in the study had already achieved access to health care, simply by coming to the clinic. Although we questioned subjects only about barriers that they had encountered *prior* to first visiting the pediatric Latino clinic, it is possible that the study population had fewer access barriers than the general Latino community. We therefore may have underestimated the severity and prevalence of the access barriers. The external validity of our study, however, is supported by the initial results of an ongoing population-based study that we are conducting on access barriers for Latino children. A second limitation is that our study population is representative of Latino urban communities in the northeast United States. There were few Mexican-American and Cuban-American participants in the study, although these subgroups respectively constitute the majority of Latinos in the western and southeastern regions of the United States.

LATINO CHILDREN whose parents were recent immigrants had a significantly lower adjusted odds of having spent 1 or more days in bed for illness in the past year. This possibly “protective” association between recent parental immigration and the health of Latino children is suggestive of the phenomenon among Latinos known as the “epidemiologic paradox”: although Latinos are a socioeconomically disadvantaged minority group, they have a low rate of low birth weight that is similar to the rate for whites.¹³ Studies indicate that after adjustment for potential confounders, it is foreign-born Latina mothers who have the low rates of low-birth-weight infants, whereas US-born Latinas are at a significantly greater risk of having low-birth-weight infants.^{13,14} This “healthy immigrant effect” has been attributed to factors related to the culture, health behaviors, and nutritional habits of recent immigrants,^{13,14} but the specific factors responsible still have not been identified. Neither citizenship nor the duration of parental residency in the United States, however, had a significant effect in our study on any of the remaining 4 outcomes examined in multivariate analyses.

Transportation problems and excessive waiting times in the clinic were identified by Latino parents in our study as major access barriers to care for their children. Although little attention has been devoted to investigating the role of these barriers in previous work on access in Latino children,⁴ our results confirm the findings of the few studies that have examined these obstacles. Transportation problems were reported most often in our study as the reason why parents deferred medical visits for their children. In the 3 previous studies that evaluated transportation,^{8,15,16} 26% to 35% of parents cited it as a major barrier, similar to the 21% figure in our study. Excessive waiting times in the clinic were cited as the single most important barrier by 15% of parents in our study, placing it second behind lan-

guage problems. In the 3 studies that have examined excessive waiting times,^{9,16,17} 24% to 56% of parents named it as an important barrier.

By inquiring about family income, pediatric practitioners may be able to identify in advance those Latino children at greatest risk for poor health and inappropriate utilization of services. We found that Latino children in families with the lowest incomes are at greatest odds of having suboptimal health status and the highest number of physician visits for any reason. In addition, about 1 in 5 Latino parents reported that they had not brought their child in for health care in the past because they could not afford it. Low income, however, was associated with reduced odds of a Latino child's being brought to the emergency department for routine sick visits. The reasons for this association are not clear. It may arise from limited access to care for children of the working poor, who often have difficulty obtaining health insurance for their families, and who earn too much to qualify for Medicaid. For example, among inner-city Latino families in Los Angeles, Calif, episodic or no insurance coverage were important predictors of limited access to care for children.¹⁸ However, although 16% of parents in our study said that lack of health insurance had caused them to defer physician visits for their child, insurance coverage was not significantly associated with any of the health outcomes after adjustment for relevant covariates in the multivariate analyses.

In conclusion, language problems, cultural differences, poverty, lack of health insurance, transportation difficulties, and long waiting times were identified by parents as the most important barriers to health care access for Latino children. Some Latino parents reported that the lack of Spanish-speaking staff resulted in adverse health consequences for their children, including poor medical care, misdiagnosis, inappropriate medications, and inappropriate hospitalizations. Low family income emerged from multivariate analyses as an important predictor of suboptimal health and high utilization of health services. Our findings suggest that interventions that would reduce barriers to health care for Latino children might include improving interpreter services, increasing the bilingual capabilities of staff, and enhancing the cultural competency of providers.

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REFERENCES

1. US Bureau of the Census. *Statistical Abstract of the United States: 1997*. 117th ed. Washington, DC: US Dept of Commerce; 1997.
2. Aguirre-Molina M, Molina C. Latino populations: who are they? In: Molina C, Aguirre-Molina M, eds. *Latino Health in the US: A Growing Challenge*. Washington, DC: American Public Health Association; 1994:3-22.
3. Mendoza FS. The health of Latino children in the United States. *Future Child*. 1994; 4:43-72.
4. Flores G, Vega LR. Barriers to health care access for Latino children: a review. *Fam Med*. 1998;30:196-205.
5. Dean AG, Dean JA, Coulombier D, et al. *Epi Info, Version 6: A Word Processing, Database, and Statistics Program for Epidemiology and Microcomputers*. Atlanta, Ga: Centers for Disease Control and Prevention; 1994.
6. Gustafson TL. *True Epistat*. Version 5.0. Richardson, Tex: Epistat Services Inc; 1994.
7. Norusis MJ. *SPSS for Windows*. Release 7.5. Chicago, Ill: SPSS Inc; 1996.
8. Lewis MA, Rachelefsky G, Lewis CE, Leake B, Richards W. The termination of a randomized clinical trial for poor Hispanic children. *Arch Pediatr Adolesc Med*. 1994;148:364-367.
9. Zambrana RE, Ell K, Dorrington C, Wachsmen L, Hodge D. The relationship between psychosocial status of immigrant Latino mothers and use of pediatric emergency services. *Health Soc Work*. 1994;19:93-102.
10. Triandis HC, Marin G, Lisansky J, et al. Simpatía as a cultural script of Hispanics. *J Pers Soc Psychol*. 1984;47:1363.
11. Pérez-Stable EJ. Issues in Latino health care—Medical Staff Conference, University of California, San Francisco. *West J Med*. 1987;146:213-218.
12. American Medical Association. Portraits of major US racial/ethnic groups. In: *Culturally Competent Health Care for Adolescents*. Chicago, Ill: American Medical Association; 1994:39-67.
13. Fuentes-Afflick E, Lurie P. Low birth weight and Latino ethnicity: examining the epidemiologic paradox. *Arch Pediatr Adolesc Med*. 1997;151:665-674.
14. Collins JW, Shay DK. Prevalence of low birth weight among Hispanic infants with United States-born and foreign-born mothers: the effect of urban poverty. *Am J Epidemiol*. 1994;139:184-192.
15. Wood PR, Hidalgo HA, Pihoda TJ, Kromer ME. Hispanic children with asthma: morbidity. *Pediatrics*. 1993;91:62-69.
16. Moore P, Hepworth JT. Use of perinatal and infant health services by Mexican-American Medicaid enrollees. *JAMA*. 1994;272:297-304.
17. Cornelius, LJ. Barriers to medical care for white, black, and Hispanic American children. *J Natl Med Assoc*. 1993;85:281-288.
18. Halfon N, Wood DL, Valdez RB, Pereyra M, Duan N. Medicaid enrollment and health services access by Latino children in inner-city Los Angeles. *JAMA*. 1997; 277:636-641.

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