



# HHS Public Access

Author manuscript

*J Immigr Minor Health*. Author manuscript; available in PMC 2015 June 18.

Published in final edited form as:

*J Immigr Minor Health*. 2013 June ; 15(3): 453–461. doi:10.1007/s10903-012-9643-1.

## The Association between Acculturation and Health Insurance Coverage for Immigrant Children from Socioeconomically Disadvantaged Regions of Origin

Daphne C. Hernandez<sup>1</sup> and Rachel Tolbert Kimbro<sup>2</sup>

<sup>1</sup>Department of Health & Human Performance University of Houston 3855 Holman Street Garrison Gym, Room 104 Houston, TX 77204-6015 dhernandez26@uh.edu <sup>2</sup>Rice University, Department of Sociology, Houston, Texas 77005

### Abstract

Among immigrant children whose parents have historically had lower education, the study explored which immigrant children were most likely to have coverage based on maternal region of origin. The direct and indirect relationship of acculturation on immigrant children's coverage was also assessed. A subsample of U.S.-born children with foreign-born mothers from the Early Childhood Longitudinal Survey-Kindergarten Cohort was analyzed using multinomial logistic regressions ( $n = 1,686$ ). Children whose mothers emigrated from the Caribbean or Indochina had greater odds of being insured compared to children whose mothers emigrated from Mexico. Moreover, Latin American children did not statistically differ from Mexican children in being uninsured. Maternal citizenship was positively associated with children's coverage; while living in a household with a mother who migrated as a child was negatively associated with private insurance. To increase immigrant children's coverage, Latin American and Mexican families may benefit from additional financial assistance, rather than cultural assistance.

### Keywords

immigrant children; coverage; health insurance; acculturation; low-income children

### Introduction

Children of immigrants represent a significant proportion of the total population of children in the U.S., with 24% under age 8 years residing with an immigrant parent [1]. Although the majority of children in immigrant families are U.S. citizens, citizen children with foreign-born parents were over twice as likely to be uninsured in 2008 compared to children of native-born parents (17.6% vs. 7.1%) according to data from the American Community Survey [2]. Compared to children of native-born parents, children of foreign-born parents have considerably lower rates of employer-sponsored and private insurance [3, 4], despite their parents' high rates of full-time employment [5]. In addition, children in immigrant

families have low participation in government insurance considering their high poverty rates [6].

As a group, children of immigrants, which include both foreign-born children as well as U.S.-born children with foreign-born parents, tend to be disadvantaged compared to children of native-born parents. For instance, there is great disparity in health insurance coverage among immigrant families with children. Immigrant children whose parents are from Australia, New Zealand, and Canada have the highest rate of private insurance coverage (82%); while immigrant children whose parents are from Central America, Dominican Republic, Haiti, Indochina, and Mexico, have the lowest rate of private coverage (approximately 38%). Further, immigrant children from Central America Dominican Republic, Haiti, Indochina, and Mexico have the highest uninsured rates (approximately 30%) [7].

The disparities in health insurance coverage among immigrant children are likely to be attributed to the discrepancy in parental education across groups. For instance, ninety-two percent of immigrant parents (i.e. mothers and fathers) from Australia, New Zealand, and Canada graduated from high school, in comparison to 38% of immigrant parents from Central America Dominican Republic, Haiti, Indochina, and Mexico [7]. Among immigrant groups with low parental education, a greater percentage of immigrant children whose parents are from Indochina receive private coverage (53%) compared to immigrant children whose parents are from Mexico (34%). It seems likely that the discrepancy among these two groups of immigrant children may be attributable to parental education. Over half of Indochinese parents complete high school compared to approximately one-third of Mexican parents. Low levels of educational attainment are associated with occupations that do not provide employer-based health insurance and the disadvantaged economic circumstances of parents with low education limits their ability to purchase insurance, resulting in immigrant children being more likely to be uninsured [5, 8].

Given the lower likelihood of insurance coverage among children from immigrant groups with typically less-educated parents, it is important to understand the additional factors that influence coverage. For example, prior research suggests that low education is correlated with acculturation barriers for immigrant families [7]. Acculturation is the process of adopting the behavioral practices and values of the dominant society; it is a multidimensional construct that can be measured in various ways, such as citizenship status, time spent in the U.S., or English proficiency [9]. For example, limited English language proficiency can exacerbate coverage disparities within the immigrant population. Latino and Asian parents have reported being unable to complete Medicaid applications for their children due to limited English proficiency [10, 11]. The confluence of limited English proficiency and potentially low educational attainment could lead immigrants to misunderstand policies and available public resources. Thus, immigrant parents may not enroll their income-eligible U.S.-born children in public health insurance because they fear not being able to re-enter or remain in the country or not being eligible to become a naturalized citizen or sponsor relatives [12, 13].

The Affordable Care Act (ACA) became law in March 2010 and will be fully implemented by 2014. Through ACA legal immigrants who are income-ineligible for public insurance and do not have employer-sponsored insurance will be mandated to purchase coverage. Yet, immigrant children whose parents have low education may continue to have high uninsurance rates because their parents' disadvantaged economic circumstances prevents coverage from being affordable. If acculturation is the mechanism that helps immigrant groups with low parental education obtain coverage, then helping immigrant parents with low education adapt to the U.S. will be necessary to increase coverage among immigrant children from disadvantaged socio-economic backgrounds. If acculturation is related to coverage among immigrant groups with low parental education, but not a significant mediator between immigrant groups with low parental education and coverage, the findings may highlight which groups of immigrant parents may need greater financial assistance in covering the cost of insurance premiums for their children. In other words, assisting with adaptation may not facilitate coverage for immigrant children whose parents have low education; but assisting with paying for coverage may help.

The current study focuses on groups of immigrant children whose parents have historically had low education (based on maternal region of origin). Specifically, the current study investigates which regions are predictive of immigrant children's coverage. In addition, the study explores the direct relationship of acculturation for immigrant children's coverage, as well as exploring whether acculturation mediates the child health coverage differences between immigrants groups which have historically low education. Finally, the study explores whether the above relationships remain for immigrant children who are most at-risk of being uninsured – those who reside in households less than 200% of the Federal Poverty Line (FPL). From a policy perspective it is significant to investigate how acculturation influences immigrant children's coverage among the regions that are historically known for sending migrants with low education as these particular immigrant groups are most at-risk for being uninsured.

## Methods

### Data and Sample

Data were drawn from four waves of data from the Early Childhood Longitudinal Study (ECLS-K), a nationally representative, longitudinal study of children's early school experiences and development collected by the National Center for Education Statistics (NCES). A total of 21,260 children were first assessed in the fall and spring of kindergarten (1998–1999) from 1,280 public and private schools, followed by the fall and spring of 1<sup>st</sup> grade (1999–2000), the spring of 3<sup>rd</sup> grade (2002), 5<sup>th</sup> grade (2004), and 8<sup>th</sup> grade (2007). Further information on sampling, recruitment, and attrition can be found at <http://nces.ed.gov/ecls/kindergarten.asp>. We focused on data collected when children were in spring of kindergarten (1999), spring of 1<sup>st</sup> grade (2000), and spring of 5<sup>th</sup> grade. The study was approved by the Institutional Review Board at both University institutions.

A total of 17,000 children participated in the study through 5<sup>th</sup> grade; however, of those 17,000 children, only 3,143 children were from immigrant families. Of the 3,143 immigrant children, the sample was further restricted to children of immigrants with complete health

insurance data at 5<sup>th</sup> grade (899 cases excluded; respondents missing data were slightly more likely to be of Caribbean origin but otherwise the two groups did not differ substantively on sociodemographic measures). In order to better identify and describe which immigrant children's households had disadvantaged socioeconomic profiles, we categorized children into 8 mutually exclusive categories based on their maternal region of origin similar to work by Akers and Frank [14], Hernandez [7] and Oza-Frank et al [15]. We then tested the household socioeconomic characteristics of the regions historically known to have low parental education (i.e. Mexico, Latin America, Caribbean, and Indochina) with regions historically known to have higher parental education (e.g., Western Europe; Northeast Asia) [7]. Compared to regions known to have high parental education, the above four regions historically known to have low parental education had lower socioeconomic profiles on maternal education, parental professional occupation, and household income in relation to the FPL. The sample was then restricted to regions with the lower socioeconomic profile (558 cases excluded).

We then used multiple imputation techniques to impute missing data on the independent variables and covariates. Missing data was generally low; with the exception of data required to calculate poverty thresholds, for which approximately 13% of the sample was missing information. With multiple imputation all relevant cases are kept in the analysis for accurate parameter estimates and the standard errors are corrected for the amount of missing information. This is in comparison to listwise deletion, which results in a sample no longer representative of the population [16, 17]. The final analytic sample consisted of 1,686 immigrant children.

### Outcome Variable

**Health Insurance Coverage**—Mothers reported on children's health insurance coverage. Responses were categorized into three mutually exclusive dichotomous variables: private health insurance, public health insurance (which includes CHIP or Medicaid), and no health insurance, in both 1<sup>st</sup> grade and 5<sup>th</sup> grade. Mothers who reported both public and private coverage were coded as having public coverage. Mothers who reported having no private coverage, nor public coverage, were coded as have no insurance.

### Independent Variables

**Maternal Region of Origin and Acculturation**—Mother's *region of origin* came from mother's response to a question about her country of birth, collected at the 1<sup>st</sup>-grade survey. As mentioned above, countries were grouped into regions similar to work performed by Akers and Frank [14], Hernandez [7] and Oza-Frank et al [15]: Mexico, Latin America (e.g., Argentina, Brazil, Costa Rica, Panama), Caribbean (e.g., Dominican Republic, Haiti, Jamaica), and Indochina (e.g., Cambodia, Laos, Thailand, Vietnam).

Acculturation was measured by *mother's citizenship status* (1 = citizen; 0 = non-citizen) at 1<sup>st</sup> grade, as well as *generation status* and *English proficiency* at kindergarten. Mothers who reported migrating to the U.S. as a child or pre-adolescent (<=12 years of age) were coded as the 1.5 generation; while immigrant mothers who arrived to the U.S. as adolescents or adults (>= 13 years of age) were coded as the 1.0 generation (1 = 1.5 generation; 0 = 1.0

generation). Mothers reported on their ability to speak, read, write, and understand someone speaking English on a 1 = *very well* to 4 = *not very well* scale. The four items were reverse coded and a binary variable indicating English proficient was created if respondents scored a 4 on the reverse coded variable on all three measures (i.e., English proficient); immigrants who scored a 3 or less on any measure were categorized as 0 = limited English proficiency (LEP).

## Covariates

A rich set of child, household, and state-level characteristics were included in the models. All variables were collected at 1<sup>st</sup> grade unless otherwise noted. *Child characteristics*: Age (years), gender (1 = male; 0 = female), health (1 = excellent health – 5 = poor health). *Mother characteristics*: Age (years). *Household socioeconomic characteristics*: married household (1 = yes; 0 = no), maternal education (1 = high school diploma or more; 0 = less than high school degree), parental employment status (1 = full time; 0 = not full time), parental occupational status [professional, administrative, service, other, none (reference)], household income based on Federal Poverty Line (FPL) threshold [< 100% FPL(reference); 100–199% FPL; 200–299% FPL; >=300% FPL], number of children in the household. *State characteristics*: State-level indicators were collected based on 2004 data (coinciding with childrens' 5<sup>th</sup>-grade status) and included: percent unemployed and percent of low-income uninsured children.

**Statistical Methods**—Descriptive analyses and multinomial logistic regression models which accounted for the complex survey design of the ECLS-K were conducted in STATA 12. Descriptive analyses are unweighted, and the regression models are weighted using ECLS-K longitudinal weights. To perform multinomial logistic regressions on imputed panel data, we used STATA's ICE command to impute five data sets and the MIM command in conjunction with the MLOGIT command to conduct regression analyses. To assess whether acculturation mediated the relationship between region of origin and immigrant children's health insurance coverage methods outlined by Baron and Kenny [18] and Sobel and Leinhardt [19] were followed. In all regression models we included covariates in the models and a baseline measure of health insurance coverage (from 1<sup>st</sup> grade). This method accounts for potentially unobserved family characteristics (such as preference to be risk-averse), which may be related to health insurance coverage and is a strength of our analysis.

## Results

### Sample Characteristics

While 88% of U.S.-born children of immigrant mothers have either private or public insurance during elementary school, there are coverage disparities within this group of immigrant children (Table 1). Compared to children whose mothers were from Mexico (31%), children whose mothers were from Latin America (47%), the Caribbean (50%), or Indochina (60%) were more likely to receive private insurance. Children whose mothers were from the Caribbean (6%) or Indochina (4%) were less likely to be uninsured compared to children whose mothers are from Mexico (18%). A greater percentage of mothers from

Latin America, the Caribbean, and Indochina compared to mothers from Mexico were more likely to be U.S. citizens and English proficient.

Children whose mothers were from Latin America, the Caribbean, and Indochina were more likely to be healthier and to reside with older mothers. A greater proportion of mothers from Latin America, the Caribbean, and Indochina completed a high school degree compared to mothers from Mexico. A greater proportion of children whose mothers were from Mexico had a parent with a service occupation or another non-professional or non-administrative occupation. In addition, children whose mothers were from Mexico were more likely to reside in households whose incomes were below 100% of the FPL. Children whose mothers were from Mexico were more likely to live in states where a greater percentage of low income children were uninsured.

### Multivariate Analyses

We tested the association between mothers' regions of origin and immigrant children's health insurance coverage and examined the direct and indirect effects of maternal acculturation (Table 2). Among the full analytic sample, after accounting for socioeconomic, demographic, and state-level variables, children whose mothers were from Indochina were approximately 6 times, and children whose mothers were from the Caribbean were approximately 4 times, at greater odds to receive private insurance compared to children whose mothers were from Mexico (Panel A). Model 2 of Panel A adds the acculturation measures to the models to test whether acculturation mediates region of origin differences in insurance coverage. Sobel tests indicated no significant mediation, however, immigrant children whose mothers were a U.S. citizen were approximately 2.5 times at greater odds to receive private insurance relative to being uninsured.

Panel B demonstrates that children whose mothers were from the Caribbean and Indochina were over 4 times at greater odds to receive public insurance compared to children whose mothers were from Mexico. Acculturation was not significantly related to the likelihood of obtaining public insurance, nor was there significant mediation of region of origin differences in coverage by the acculturation measures. In regards to predicting private versus public coverage (Panel C), neither region of origin nor acculturation were significant predictors.

Next, we test whether the observed associations differed for children who are poor and near-poor, in the third and fourth column of Table 2. Among the subsample of immigrant children who lived in households 200% below the FPL, children whose mothers emigrated from Indochina had nearly four times the odds of having private coverage (Panel A), and three times the odds of having public coverage (Panel B), compared to Mexican children. Although acculturation measures again emerge as significant predictors of insurance coverage at fifth grade, they were not significant mediators of the relationship between maternal region of origin and insurance coverage. Children whose mothers were U.S. citizens were over 2.5 times at greater odds to be covered by private insurance; while children whose mothers emigrated as a child were 65% at lower odds to be covered by private insurance (Panel A). Finally, children whose mothers emigrated from Latin America were 51% at lower odds to be covered by private insurance relative to public insurance, and

children whose mothers emigrated as children were 57% at lower odds to be covered by private insurance, relative to public insurance (Panel C).

## Discussion

Focusing on a sample of immigrant children whose parents have historically had low levels of education (based on maternal region of origin), this study explored which immigrant children are mostly likely to have health insurance coverage based on maternal region of origin. The results revealed that 88% of immigrant children were insured, despite their disadvantaged socioeconomic profile. Health coverage for the immigrant children in our sample was split between private and public coverage. Specifically, the results indicated that children whose mothers were from Indochina compared to children whose mothers were from Mexico were at greater odds to be covered by private or public insurance than be uninsured. This finding was observed among immigrants in the full sample as well as among immigrant children who resided in households less than 200% of the FPL. Further, children whose mothers were from the Caribbean compared to children whose mothers were from Mexico were at greater odds to have public insurance than be uninsured. The study also investigated the direct and indirect relationship of acculturation on immigrant children's coverage. The results indicated that acculturation has a direct relationship with coverage and does not mediate the association between maternal region of origin and coverage.

### Maternal region of origin

Similar to work by Hernandez [7], the present findings indicate that a greater percentage of children whose mothers were from Indochina received either private or public coverage compared to children whose mothers were from Mexico. In addition, a smaller proportion of children whose mothers were from the Caribbean were uninsured compared to children whose mothers were from Mexico. These findings remain in multivariate results, after accounting for sociodemographic and state-level characteristics, and suggest that disparities in children's coverage can be predicted from maternal regions of origin among immigrant groups with historically low levels of education. A closer examination of the socioeconomic characteristics among this traditionally disadvantaged group provides explanation to the discrepancy in health insurance coverage among this group. Compared to children whose mothers were from Mexico, a greater proportion of children whose mothers were from the Caribbean or Indochina had a high school education or more and a greater proportion of parents worked in a professional or administrative occupation. In addition, children whose mothers were from the Caribbean or Indochina were less likely to reside in households where incomes were less than 200% of the FPL.

Aside from socioeconomic characteristics, cultural beliefs regarding health-care-seeking behavior may lead to some immigrant families to enroll their U.S.-born children in public health coverage. For example, immigrants from Indochina attach fewer stigmas to enrolling in public health coverage, partly due to what may be their refugee status and automatic eligibility [8]. Thus, it is not uncommon to observe a greater proportion of Indochinese children enrolled in public insurance relative to being uninsured. This explanation does not hold, however, for Caribbean children – we are unable to explain their higher likelihood of

enrollment in public insurance relative to Mexican immigrant children – except that lower levels of education and fears of immigration enforcement may work to keep eligible children of Mexican immigrants un-enrolled in public coverage.

Mexican children are the most vulnerable population among the disadvantaged immigrant groups in obtaining health insurance. This is a concern as uninsured children are less likely to access care and have unmet health care needs, compromising children's overall health [20]. Mexican mothers may lack understanding of their U.S.-born children's legal rights to public health insurance due to their limited education and lower levels of English proficiency, as well as fear of receiving government aid may prevent their ability to receive a green card, sponsor a relative, or remain in the country [12, 13]. Pediatricians and school nurses could apply culturally sensitive practices and an interpreter service to target immigrant households with information on available government aid for U.S.-born children. By demystifying the public assistance application process, pediatricians and school nurses could help immigrant parents acquire the knowledge needed to enroll children in public coverage, thereby benefiting the health and overall well-being of U.S.-born children of Mexican-descent.

### Acculturation

Results indicate that acculturation has a direct effect on immigrant children's coverage. Specifically, children whose mothers were U.S. citizens were at greater odds receive private coverage. This finding was consistent among the full sample and among the poor and near-poor sample. Further, among children who resided in households less than 200% of the FPL, having a mother who migrated as a child is associated with lower odds of private coverage relative both to being uninsured as well as having public coverage. Given that migrating as a child, compared to migrating as an adult, is often considered a marker of greater acculturation, we expected to find that children of the 1.5 generation had higher odds of private coverage. However, it is conceivable that after accounting for all of our covariates, mothers who migrated as children were a more disadvantaged group on average, thus explaining what may seem counterintuitive.

These findings suggest that providing greater cultural assistance to these families may not necessarily increase coverage among immigrant groups with low parent education. Instead families may need assistance in paying premiums, especially families whose incomes are above the income-eligible threshold for public assistance, such as Latin American and Mexican families who are most at-risk for this to occur. For example, Latin American children do not statistically differ from Mexican children in being uninsured. Regardless of their level of education, whether working full-time or part-time, or type of occupation, in general, Mexicans and Latinos are more likely to work for employers that do not offer health insurance coverage. For Latinos that are eligible for employer-sponsored health insurance, Latinos may not participate in coverage because of high premiums [21]. Thus, financial assistance is still needed among families whose incomes are above 200% FPL. Although the Affordable Care Act became law in March 2010, a gradient government subsidy program based on family income may be needed to assist families that are unable to pay premiums and whose incomes are above the income-eligible threshold for public assistance.



A primary limitation of our analysis is the small sample sizes of immigrant groups by country of origin. This prevents us from investigating maternal country of origin (with the exception of Mexico) and results in countries that are economically and politically different to be grouped together. Further, with 60% of the sample having a high school education or more, our sample is biased towards a sub-population with higher levels of education, despite mothers originating from countries where individuals generally have lower levels of education. Thus, the results may present conservative estimates as the bias towards more education could be masking coverage difficulties. Similarly, the higher levels of education may be why our study did not find acculturation to have a mediating effect between maternal region of origin and coverage. At the same time, our data lacks broader acculturation measures, such as comprehensive measures of language use and ability, cultural attitudes, and measures which address the reasons for migration. However, the ability to utilize the longitudinal data to control for health insurance status at first grade, as well as our focus on regions of origin with typically low levels of education for migrants, allows us to take a more nuanced look at health insurance coverage and acculturation for immigrant children. This approach reveals that children of Mexican immigrant mothers are most at risk of being uninsured; and that maternal citizenship is a major protective factor relating to health insurance coverage for children from immigrant families that are traditionally from regions with low parental education.

## ACKNOWLEDGMENTS

Funding for this project was support by a grant from the Robert Wood Johnson Foundation New Connections program and a grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (K12 HD055882) to the first author. In addition, funding for this project was support by a Young Scholar award from the Foundation for Child Development to the second author.

## References

1. Capps, R., et al. *The Health and Well-being of Young Children and Immigrants*. Washington, D.C.: Urban Institute; 2004. p. 1-42.
2. Lynch, V., et al. *Uninsured Children: Who Are They and Where Do They Live?*. Washington, D.C.: Urban Institute; 2010.
3. Guendelman S, Schauffler HH, Pearl M. Unfriendly shores: How immigrant children fare in the US health system. *Health Aff*. 2001; 20(1):257–266.
4. Lessard G, Ku L. Gaps in coverage for children in immigrant families. *Future Child*. 2003; 13(1): 101–115. [PubMed: 14503456]
5. Kaiser Commission on Medicaid and the Uninsured. *The Role of Employer-Sponsored Health Coverage For Immigrants: A Primer*. Washington, D.C.: Kaiser Commission; 2006.
6. Mohanty SA, et al. Health care expenditures of immigrants in the United States: A nationally representative analysis. *Am J Public Health*. 2005; 95(8):1431–1438. [PubMed: 16043671]
7. Hernandez DJ. Demographic change and the life circumstances of immigrant families. *Future Child*. 2004; 14(2):17–49.
8. Hernandez, DJ.; Charney, E. *From Generation to Generation: The Health and Well-being of Children in Immigrant Families*. Washington DC: National Academy Press; 1998.
9. Lara M, et al. Acculturation and Latino health in the United States: A review of the literature and its sociopolitical context. *Annu Rev Public Health*. 2005; 26:367–397. [PubMed: 15760294]
10. Institute for Health Policy Studies. *Barriers to Enrollment in Healthy Families and Medi-Cal: Findings from Focus Groups of Chinese, Korean, and Vietnamese parents*. San Francisco: University of California - San Francisco; 2000.

11. Perry, M., et al. Medicaid and Children: Overcoming Barriers to Enrollment: Findings from a National Survey. Washington, DC: Kaiser: Commission on Medicaid and the Uninsured; 2000.
12. Fremstad, S. [cited 2010 March 26] The INS Public Charge Guidance: What Does it Mean for Immigrants Who Need Public Assistance. 2000. Available from: <http://www.cbpp.org/cms/index.cfm?fa=view&id=1550>.
13. National Immigration Law Center. [cited 2010 March 26] Questions and Answers about "Public Charge". 1999. Available from: <http://www.nilc.org/immspbs/bu/ebupdate995.htm>.
14. Akresh IR, Frank R. Health selection among new immigrants. *Am J Public Health*. 2008; 98(11): 2058–2064. [PubMed: 18309141]
15. Oza-Frank R, Stephenson R, Venkat Narayan KM. Diabetes prevalence by length of residence among US immigrants. *J Immigr Minor Health*. 2011; 13:1–8. [PubMed: 19688263]
16. Graham JW. Missing data analysis: Making it work in the real world. *Annu Rev Psychol*. 2009; 60:549–576. [PubMed: 18652544]
17. Graham, JW.; Schafer, JL. On the performance of multiple imputation for multivariate data with small sample size. In: Hoyle, RH., editor. *Statistical Strategies for Small Sample Research*. Thousand Oaks, CA: Sage; 1999. p. 1-27.
18. Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J Pers Soc Psychol*. 1986; 51(6): 1173–1182. [PubMed: 3806354]
19. Sobel ME, Leinhardt S. Asymptotic confidence intervals for indirect effects in structural equation models. *Sociol Methodol*. 1982; 13:290–312.
20. Newacheck PW, et al. Health insurance and access to primary care for children. *N Engl J Med*. 1998; 338(8):513–519. [PubMed: 9468469]
21. Brown, ER.; Yu, H. Latinos' access to employment-based health insurance. In: Suarez-Orozco, MM.; Paez, MM., editors. *Latinos: Remaking America*. Berkeley: University of California Press; 2002. p. 236-253.

Proportions or Means (Standard Errors) of the Characteristics for the Full Analytic Sample and by Maternal Region of Origin

TABLE 1

	Full Analytic Sampl (n=1686)	Mexico (n = 782)	Latin America (n = 260)	Caribbean (n = 152)	Indochina (n = 492)
Health Insurance Coverage at 5 <sup>th</sup> Grade					
Private	44	31	47***	50***	60***
Public	44	51	38***	44	36***
Uninsured	12	18	15	6**	4***
Maternal Acculturation					
U.S. Citizen	38	21	41***	56***	59***
1.5 Generation <sup>a</sup>	19	18	17	26*	20
English Proficient	21	11	30***	35***	27***
Child Characteristics					
Male	5	51	48	52	49
Age, y	7.16 (0.01)	7.16 (0.01)	7.21 (0.01)	7.15 (0.02)	7.14 (0.01)
Health status	1.97 (0.01)	2.10 (0.02)	1.72 (0.03)***	1.74 (0.05)***	1.94 (0.03)**
Mother Characteristics					
Age, y	34.49 (0.11)	33.10 (0.15)	34.73 (0.23)***	36.24 (0.31)***	36.02 (0.19)***
Household Socioeconomic Characteristics					
Married Household	83	84	86	66***	86
Mother has high school degree/more	60	44	72***	73***	75***
Parent employment status					
Full-time	87	85	92**	82	90**
Parental Occupation status					
Professional	20	13	27***	24**	26***
Administrative	20	15	24**	30***	23***
Service	24	26	24	28	21
Other	29	39	21***	9***	24***

	Full Analytic Sample (n=1686)	Mexico (n = 782)	Latin America (n = 260)	Caribbean (n = 152)	Indochina (n = 492)
	7	7	4*	9	6
Household income					
<100% FPL <sup>b</sup>	42	54	30***	35***	32***
100–199% FPL	32	33	33	33	29
200–299% FPL	9	6	11**	13**	13***
>= 300% FPL	16	7	26***	19***	26***
Number of siblings	1.82 (0.02)	1.92 (0.02)	1.40 (0.03)***	1.36 (0.05)***	2.03 (0.05)
State Characteristics					
% Unemployed	5.72 (0.02)	5.83 (0.02)	5.36 (0.04)***	5.58 (0.06)**	5.77 (0.04)
% Low Income Uninsured Children	7.42 (0.04)	8.23 (0.04)	7.32 (0.10)***	6.18 (0.13)***	6.57 (0.07)***

Note. Descriptives based on non-imputed data. Significant difference from Mexican immigrants:

\*\*\* p<.001,

\*\* p<.01,

\* p<.05.

<sup>a</sup> 1.5 generation = Mother migrated to the U.S. as a child (<=12 years of age).

<sup>b</sup> FPL = Federal Poverty Line.

TABLE 2

Adjusted Odds Ratios (95% CI) of Maternal Region of Origin and Acculturation Predicting Immigrant Children's Health Insurance Coverage at 5<sup>th</sup> Grade<sup>a</sup>

Panel A: Private vs. Uninsured				
Maternal Region of Origin	Full Sample		< 200% FPL Sample	
	Model 1: Coverage	Model 2 <sup>b</sup> Coverage	Model 1: Coverage	Model 2 <sup>b</sup> Coverage
Mexico	1.00	1.00	1.00	1.00
Latin America	1.19 (0.55, 2.59)	1.14 (0.52, 2.51)	1.07 (0.44, 2.59)	0.99 (0.40, 2.47)
Caribbean	4.01* (1.21, 13.30)	3.66* (1.04, 12.91)	2.78 (0.83, 9.37)	2.40 (0.68, 8.50)
Indochina	6.08*** (2.27, 16.27)	5.75** (2.01, 16.43)	3.87* (1.38, 10.85)	3.51* (1.22, 10.07)
Acculturation				
U.S. Citizen	---	2.47* (0.28, 1.19)	---	2.63* (1.22, 5.65)
1.5 Generation	---	0.57 (0.44, 3.86)	---	0.35** (0.16, 0.77)
English Proficient	---	1.30 (2.88, 13.19)	---	1.93 (0.70, 5.34)
Panel B: Public vs. Uninsured				
Maternal Region of Origin	Full Sample		< 200% FPL Sample	
	Model 1: Coverage	Model 2 <sup>b</sup> Coverage	Model 1: Coverage	Model 2 <sup>b</sup> Coverage
Mexico	1.00	1.00	1.00	1.00
Latin America	1.64 (0.43, 3.45)	1.64 (0.77, 3.50)	2.05 (0.43, 4.84)	2.02 (0.84, 4.83)
Caribbean	4.35* (1.20, 15.79)	4.21* (1.12, 15.85)	2.78 (0.83, 9.28)	2.54 (0.76, 8.55)
Indochina	4.11** (1.48, 11.42)	4.19** (1.44, 12.26)	3.02* (1.06, 8.63)	2.93* (1.02, 8.41)
Acculturation				
U.S. Citizen	---	1.70 (0.84, 3.43)	---	1.68 (0.81, 3.50)
1.5 Generation	---	0.83 (0.42, 1.63)	---	0.81 (0.41, 1.58)
English Proficient	---	0.77 (0.24, 2.55)	---	0.98 (0.35, 2.77)
Panel C: Private vs. Public				
Maternal Region of Origin	Full Sample		< 200 % FPL Sample	
	Model 1: Coverage	Model 2 <sup>b</sup> Coverage	Model 1: Coverage	Model 2 <sup>b</sup> Coverage
Mexico	1.00	1.00	1.00	1.00
Latin America	0.73 (0.40, 1.32)	0.69 (0.38, 1.27)	0.52 (0.27, 1.02)	0.49* (0.25, 0.98)
Caribbean	0.45 (0.40, 2.13)	0.87 (0.37, 2.02)	1.00 (0.41, 2.45)	0.94 (0.37, 2.40)
Indochina	1.48 (0.84, 2.61)	1.37 (0.76, 2.46)	1.28 (0.65, 2.55)	1.20 (0.59, 2.42)
Acculturation				
U.S. Citizen	---	1.46 (0.89, 2.39)	---	1.56 (0.90, 2.73)
1.5 Generation	---	0.70 (0.39, 1.25)	---	0.43* (0.22, 0.85)
English Proficient	---	1.67 (0.90, 8.97)	---	1.97 (0.87, 4.43)

*Note.* CI = Confidence Interval. 1.5 generation = Mother migrated to the U.S. as a child ( $\leq 12$  years of age).

<sup>a</sup> Analyses are based on imputed sample (n = 1,686 for full sample; n = 1302 for < 200% FPL sample) Model 1 and Model 2 = Controlled for child, household, and state-level characteristics listed in Table 1, along with baseline measure of health insurance coverage.

<sup>b</sup> Model 2 corresponds to Step 4 outlined by Baron and Kenny [18] and Sobel and Leinhardt [19].

\*\*\*  
p<.001;

\*\*  
p<.01;

\*  
p<.05.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript