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Unequal access: Insurance Coverage and Immigrant Generational Status of Diverse Children

ABSTRACT

A major objective of the Patient Protection and Affordable Care Act passed in March 2010 is to ensure access to care for millions of uninsured Americans. This paper expands on existing work that finds differential patterns of health care access based on race, ethnicity and nativity by highlighting theoretical links between access to care and assimilation. I examine inequities in health insurance coverage for children across immigrant generations for four major U.S. racial/ethnic groups, testing potential explanations for racial/ethnic-generational differences using data from the 2007 National Survey of Child Health. More time in the country (across generations) does not mean equal increases in insurance for the children of all groups. Whereas the percentage of second generation Hispanic children that are insured doubles from the first to the second generation, the comparative change for Black children is much smaller. Socioeconomic status and other characteristics do not explain away inequities, particularly for Hispanic and black first generation children. Neither the comparative disadvantage of second generation black children nor the advantage of later generation Asian children is accounted for. Language use in the home emerges as a key factor differentiating insurance coverage for second generation Hispanic children. With the growing number of children of immigrants in the United States, this project establishes a crucial baseline on equity of access by which to evaluate implementation of future health care reform.

Immigration and assimilation are two key processes inherent to the future health and prosperity of the United States. The first, immigration, is a driving force leading to increased racial/ethnic diversity. Immigrants now account for one in eight U.S. residents, the highest level in 80 years (Camarota 2007). Immigrant children and the children of immigrants of various racial/ethnic groups have become the fastest growing segment of America's population (Zhou 1997; Tienda & Haskins 2011). In 2010, more than one out of every five children under age 18 in the United States was estimated to have at least one foreign-born parent ("America's Children" 2011).

Socioeconomic assimilation, or the disappearance of socioeconomic differences between generations of immigrants and native groups, is a significant form of assimilation and "parity of life chances with natives is a critical indicator of the decline of ethnic boundaries" (Alba and Nee 1997, p. 835). In the United States, socioeconomic status is assumed a leading predictor of insurance coverage and access to medical care. In other words, access to care is fundamentally a function of financial position, except to the extent that public welfare benefits have been extended to certain categories of people. Thus, changes in health access between generations of diverse immigrant subpopulations also may be taken to demonstrate assimilation processes. Unfortunately, vast inequities exist among children in insurance coverage and access to health care. This paper shows that these differences fall along racial/ethnic-generational group lines and are not explained by differences in key factors associated with insurance, such as work status or socioeconomic status.

Past research has tended to conflate immigrant status with Asian and Hispanic groups, and ignored immigrant groups among whites and blacks. This paper explores differences in health care access across generations of immigrant children for four ethnic-racial groups. Looking at white and black immigrant groups, as well as third-plus generation Asians and Hispanics, helps tease out the influences of race/ethnicity and immigration. Examining differences among these groups, this study focuses on a set of nested questions: Are there differences in health insurance coverage across groups? Do those differences change within and across groups by immigrant generation? Do race/ethnicity-generation differences in the distribution of insurance predictors, such as work status, receipt of government aid, and family structure, socioeconomic status and primary language in the home explain those differences?

This study comes at a critical historical moment with implementation of the Affordable

Care Act (ACA), beginning in 2014. The act not only includes provisions "related broadly to health insurance coverage, health insurance reform, and access to care," but also for "disparities reduction, data collection and reporting, quality improvement, and prevention" (Department of Health and Human Services 2011: 7). The benchmarks presented in this study using nationally representative data on children from 2007 are crucial for evaluating implementation of this act.

Literature review

Access to health care among children of immigrants

Access to health care may be conceptualized as the ability to obtain health-related services (Kirby and Kaneda 2005). Pitkin and colleagues (2009) distinguish potential access and realized access. Potential access, the focus of this study, is often operationalized as having insurance and having access to a usual service site or provider. In line with the first objective of the ACA to provide universal coverage, this study will focus on insurance access.

The following trends have been established related to immigrants and access to care in the literature. Overall, immigrants report lower rates of insurance coverage than U.S. born populations. Foreign-born adults are twice as likely as the US-born population to be uninsured, with rates of 26.2% versus 13.0% (Thamer, et al. 1997). Similar trends have been found when focusing on children (Hernandez and Charney 1998; Mohanty et al. 2005; Huang, Yu and Ledsky 2006). Guendelman and colleagues (2001) found that among the working poor, 52 percent of all foreign-born children were uninsured compared with 20 percent of native-born children. Trends in inequities for minority and immigrant children on source of care have been found to be similar to those on insurance (Derose, Bahney, Lurie and Escarce 2009). Even citizen children of immigrants lack health insurance at higher rates than children born to native parents (Brown et al. 1999; Burgos et al. 2005; Huang, Yu and Ledsky 2006).

Insurance coverage also varies by generation status within groups. The likelihood of having health insurance increases for Mexican American children across generations (Burgos et al. 2005; Hamilton et al. 2006). Brown et al. (1999) analyzed insurance coverage patterns of children by immigration and citizenship status by race/ethnicity (white, Hispanic, black, Asian). They found variability on these effects on uninsurance by different ethnic groups. For example, Asian and Hispanic citizen children age 3 to 5 of immigrant parents have twice the uninsurance rate of Asian and Hispanic children in native-born families, while black children of U.S. born parents were more likely than citizen children in immigrant families to be uninsured.

Access to care and assimilation

Assimilation is a process of social adaptation by which diverse groups gain equal access to the opportunity structure of a given society (Alba and Nee 1997). Alba and Nee (1997: 385) assert that socioeconomic assimilation can be defined as "minority participation in institutions such as the labor market and education on the basis of parity with native groups." Movement towards parity in such indicators can be seen as successful socioeconomic assimilation. This conceptualization of assimilation serves as the basis for the multivariate analysis later in the paper. Patterns of insurance coverage for first, second and third-plus generation, white, Hispanic, black and Asian children and the attainment of parity with native whites are explored. These patterns may be examined through two fundamental theories, classic or straight-line assimilation and segmented assimilation.

Straight-line assimilation, a concept popularized by Gans, is "a process of unfolding in a sequence of generational steps; each new generation represents on average a new stage of adjustment to the host society…a step closer to more complete assimilation" (Alba and Nee 1997: 832). Straight-line theory assumes a long process eroding the social elements for

racial/ethnic distinctions, leading to rough parity with native white Americans. From this view, health access should increase toward dominant group levels across generation for all racial/ethnic groups.

Portes and Zhou (1993) recognize an American society divided into sectors of advantage and disadvantage. Segmented assimilation, as they propose, provides a basis for understanding varied outcomes for second generation immigrant groups and beyond. In contrast to straight-line assimilation theory, segmented assimilation recognizes the reality of both upward and downward mobility in terms of acculturation and economic integration. They explain how different patterns of adaptation lead to three distinct destinies of convergence and divergence: 1) acculturation and parallel integration in white middle class, 2) assimilation into underclass and transition to permanent poverty, and 3) retention of culture and tight solidarity with rapid economic advancement. From this view, health care access may increase towards dominant group levels across generations for some groups, while other groups remain disadvantaged across generations.

The present study expands on previous research by examining inequities in health care access and conceptualizing insurance coverage as an indicator of assimilation. Using data from the National Survey of Children's Health, a nationally representative sample of over 90,000 children, I assess insurance coverage of children by race/ethnicity-generation categories (white, Hispanic, black and Asian; first, second, third-plus generation). This is an improvement over previous research that analyzes generational comparisons of only Hispanic children and that do not include various generations of white, black and Asian children. This study paints a more comprehensive picture of inequity compared to native whites for each of these racial/ethnic-generation groups. Analyzing children's access to health in this way and determining the affect of potential explanatory factors of persistent inequities across racial/ethnic group and generation

also allows for better understanding of the assimilation processes affecting diverse subpopulations.

Methods

Data: The 2007 National Survey of Child Health (NSCH) was sponsored by the Maternal and Child Health Bureau and the U.S. Department of Health and Human Services. The data were collected through random-digit dial telephone survey by the National Center for Health Statistics. Parents or a primary caregiver responded for their children. The survey was administered in English, Spanish and four Asian languages. The full data set includes 91,642 children with approximately 1,800 drawn from each of the 50 states and the District of Columbia. This is true for all respondents except Asian children. Based on concern for respondent confidentiality, Asian children in states where Asians make up less than 5% of the sample were coded as "other race." This coding means that the Asian sample included in this analysis is representative only of Asians in the states where they comprised more than 5% of the state sample: California, Hawaii, Maryland, Massachusetts, Nevada, New Jersey, New York, Virginia, and Washington.

Sample: For this study the sample includes 82,789 children (from birth to 18 years old) whose immigration status is known and whose parents report their race/ethnicity as either white, Hispanic, black or Asian. Casewise deletion was performed to eliminate 1,152 cases, or 1.4% of all cases, missing data on the dependent or explanatory variables.

Measures:

Lack of insurance coverage is associated with poor heath outcomes as lack of insurance effects access to needed information, preventative care and treatment for medical conditions.

Insurance coverage is the primary dependent variable of interest in this study and differentiates between those who have insurance coverage from any source and those who do not.

The independent variables of primary interest in this study are race/ethnicity and immigration generation. Children of four major U.S. racial/ethnic groups are analyzed – white, Hispanic, black and Asian. The interview respondent reported the race of the child. Hispanic ethnicity was asked separately from race, thus those of all races who reported Hispanic ethnicity are grouped together. More specific groups or national origins were not available in the data.

Generational status is defined as first generation, second generation or third-plus generation. Children born outside of the United States are first generation immigrants. Children who were born in the United States to one or two parents born abroad are second generation children. Children who were born in the United States and whose parents were both born in the United States are third-plus generation.

Several data constraints must be noted in relation to these key variables. For race/ethnicity, third-plus generation white and black groups are not directly comparable to third-plus generation Asian and Hispanic groups. This is because the immigration of most whites and blacks to the United States preceded the immigration of Asian and Hispanic groups. This means that the white and black groups most likely contain a larger proportion of higher-generation children than the Asian and Hispanic groups. In regard to immigrant status, third generation and higher-order generations cannot be distinguished, as the grandparents' place of birth is not reported. Additionally, there is no information to assess the legal status or citizenship of the first generation children.

Inequities in insurance coverage may be due to racial/ethnic-generational variation in key factors associated with access to care. Variables used in this study to help understand inequities

in access are categorized into four sets – insurance predictors, socioeconomic status, language usage and demographic controls.[1]

Insurance predictors: I include three insurance predictor indicators assumed directly linked to the likelihood of having insurance and high access to care: work status, receipt of government aid, single female headed household. Controlling for these factors is important, as their distribution across racial/ethnic-generational groups may drive inequities in insurance coverage. The presentation in Table 1 shows the unadjusted weighted percentages of covariates by race/ethnicity-generation group.

A person's employer often provides health insurance, making work status a key predictor of insurance coverage. Work status is measured in terms of an adult member of the household working more than 50 weeks out of the past year. Selection of this single measure was dictated by the data source. While weaker than a question asking about full-time employment, this measure will capture stable employment, which is likely to be associated with access to employment-based insurance. Parents who are recipients of government aid in the form of cash assistance or food stamps may be more likely to have public health insurance. People who qualify for cash assistance will also qualify for Medicaid or SCHIP, but also among those who qualify, those who are already receiving one form of public assistance may be more likely to obtain other forms, given that they are already familiar with public welfare systems. This variable measures whether respondents received cash aid or food stamps within the past 12 months. The influence of family structure, i.e. living in a single-female headed household, is assumed to operate in two ways. Children in female-headed households may have less chance of

[1] Operationalization of covariates in this study closely follows Burgos et al. (2005) and Brown et al. (1999). A comparative chart of operationalization used in these studies and necessary alterations made based on the NSCH data set is presented in Appendix 1.

being insured through the parent's employment, while poor children in such households may be more likely to receive insurance through public agencies, as eligibility is income dependent.

Socioeconomic status indicators: Family income is defined in reference to the poverty line. Four levels are included: below poverty (0-99% of the federal poverty line (FPL)), low income (100-199% FPL), moderate income (200-399% FPL) and high income (greater than 400% FPL). Parental education level is based on the mother's education. For children not living with their mothers the education level of the child's father or guardian was substituted. The levels include having less than a high school diploma, being a high school graduate and having some education beyond high school. Higher income and education are predicted to be associated with higher rates of insurance coverage.

Language in the home: This analysis uses a dichotomous indicator of whether English is the primary language spoken in the home. Those who speak English in the home are predicted to have higher rates of insurance because in these homes language presents less of a barrier to information about insurance and how to obtain insurance.

Analysis: First, I analyze group differences in insurance coverage for first, second and third-plus generation children by race/ethnicity (Chart 1).

Next, I present results from logistic regression estimates from a series of multivariate models on insurance coverage, which assess race/ethnicity and immigrant generation differences in insurance coverage while controlling for age and gender, insurance predictors, socioeconomic status and use of English in the home. The models test to what degree the inequities found by race/ethnicity-generation can be accounted for by three sets of covariates, insurance predictors, socioeconomic status, and the use of English as the primary language in the home. The results for each model are presented using odds ratios and a summary of results for the full model on

insurance coverage is presented using predicted probabilities. In all analyses, the data are weighted to represent the population of non-institutionalized children age 0-17 nationally.

Equity of access is measured by comparing all groups to native white children, meaning that third-plus generation white children are the comparison group for all models. Classic straight-line assimilation theory leads to the assumption that each group converges toward parity or equity with third-plus generation whites. Such a gradient pattern toward equity would be evidenced by progressive changes in the odds ratios from less than one for the first generation toward one for the second and third generation. Multiple multivariate regression models control for the variation in insurance coverage for each race/ethnicity-generation group, showing the extent to which covariates do or do not account for the inequities between groups. If differences in insurance predictors and socioeconomic status account for inequities in insurance between racial/ethnic-generational groups and native whites we expect that the odds ratios will approach one and/or the odds ratios will drop from statistical significance.

Results

(*Insert chart 1 here*)

Group Differences in Access to Care

Insurance coverage: In Chart 1, the first bar shows that ninety-one percent of children have insurance coverage. This is consistent with the U.S. Census finding that 10% of all children under 18 lack health insurance (DeNavas-Walt, Proctor, and Smith 2010). Chart 1 also reveals variation across groups, with three main results. First, for Hispanic, black, and Asian children, the percent of children with insurance is higher in each subsequent generation. There is essentially no variation, however, in insurance coverage across generations among whites. Second, Hispanic children have the lowest levels of insurance coverage within each generation

and show the most profound increased level between the 1st generation and 2nd generation, with insurance coverage nearly doubling, from 43% to 84%. This jump corrects much of the Hispanic-black difference by the second generation, with Hispanic second generation children five percentage points behind second generation black children. Third, differences in insurance coverage are large between the race/ethnic groups, with whites and Asians tending to pair together at high levels of coverage and Hispanics and Blacks tending to pair together at lower levels. For example, 94% of 1st generation white children and 91% of 1st generation Asian children are insured, compared with Hispanic children at 43% and black children at 71%.

(Insert Table 1 here – Weighted distributions of covariates)

Group Differences in Demographic and Socioeconomic Characteristics

Before presenting the regression models and results, Table 1 shows the weighted percent distributions and means of demographic and social characteristics for first, second, and third-plus generation children of each race/ethnicity. Group differences in the distribution of covariates demonstrate the need to control for these factors when assessing the likelihood of having insurance, as group differences in these factors may account for differences in coverage and suggest mechanisms of inequality in insurance coverage.

Most striking is the stark socioeconomic differences between groups. A larger percent of white and Asian households have high incomes (i.e. income > 400% FPL) compared to black and Hispanic households. Other factors such as work status that may be associated with health insurance also vary considerably by race/ethnicity/generation. In the first generation 91% of white, 69% of Hispanic, 86% of black and 75.5% of Asian households have someone who worked 50 out of 52 weeks in the past year.

Several summary points also warrant mention. In the first generation, white households have an advantage in nearly every category, indicating that white immigrants come to this country with a capital advantage. However third-plus generation Asian children are more advantaged than all other groups on most indicators. Asian households are remarkable in their low percentage of government aid; nearly no households received aid in the third-plus generation. First and second generation Hispanic households are the most disadvantaged on all measures (except among the second generation in percentage of single-female headed households where black households have a higher percent). In the third generation, Hispanics hold an advantaged position over black households on most indicators. Similar trends of pairing of Asians with whites toward advantage and the pairing of Hispanics with blacks toward disadvantage found in analysis of insurance are seen in the distribution of demographic and socioeconomic characteristics across groups.

(*Insert table 2 here – Weighted percentage primary language*)

Language is a crucial component of cultural assimilation (Gordon 1964). Across generations in the sample, all racial/ethnic groups show signs of assimilation by an increased percentage of households speaking English as the primary language in the home. Differences shown in Table 2 could help to explain health care disparities in race/ethnicity beyond the effects of demographic and social factors, as language directly impacts a family's ability to understand information related to obtaining and maintaining insurance coverage. White and black households have the highest percentages of English language use in the first generation (88% and 75%), while Hispanic and Asian represent the lowest percentages, 12% and 28% respectively. Over 90% of second and nearly 100% of third-plus generation of white and black children speak English as the primary language in the home. This is substantially different for second

generation Hispanic children (26.5%) and Asian children (49%). Finally, while 100% of third-plus generation Asians speak English in the home, Hispanics remain lower at 94%.

(Insert table 3 here – Logistic models on insurance)

Logistic Regression Results for Insurance Coverage

Multivariate regression results in Table 3 show odds ratios from logistic regression models predicting insurance. While the unadjusted weighted percentages presented in Table 1 provide predicted probabilities for each group based on the weighted sample, odds ratios represent the difference in odds of having insurance between children in each group compared to native white children. Model 1 is a regression of insurance coverage on each race/ethnicity-generation group controlling only for age and sex, providing the baseline inequities between groups for comparison across models.[2] The findings are summarized as follows. First, there are no statistically significant differences in the odds of having insurance between first nor second generation white children and native whites. This is consistent across all models. Hispanics and Blacks, however have significantly lower odds of having insurance in each generation. First generation Hispanic children are the least likely of all groups to have insurance. Their odds of insurance coverage are 95% lower than the odds of third-plus generation white children. The odds ratios are larger for higher generation Hispanic children (.32 for the second generation and .61 for the third-plus generation), reflecting increases toward equity, but a disparity remains in the third-plus generation.[3] This gradient pattern is also found for blacks (.17, .50, .76). The

[2] Tests of significance determined no differences between the odds ratios in a "model 0" excluding age and gender and Model 1. This baseline model (Table 3) closely follows the descriptive statistics presented in Chart 1, and shows the marginal differences between groups.

[3] All such comparative statements made about differences in the odds between groups within each model and across models throughout the text have been verified with adjusted Wald tests of significance at the .10 level unless otherwise discussed. Significant differences between groups within each model and across each model are presented in Appendix 2. For example, adjusted Wald test results show a statistically significant difference between the odds ratios for 1st generation Hispanics and second generation Hispanics.

odds of having insurance for first generation Asian children, while lower, are not statistically different from third-plus generation white children. Second and third generation Asian children are respectively 82% and 12 times more likely to have insurance than third-plus generation white children. This large difference in odds of insurance for third-plus generation Asian children reflects the small probability of no insurance among third generation Asians, where less than 1% are uninsured.

Explanatory variables are tested in Models 2-4. Model 2 tests the effect of insurance predictors. Presence of a full year employee and having received cash aid from the government in the past year are both positively associated with the child being insured, while lowered odds for single female heads of households is not statistically significant. The adjusted Wald test score, 5.28, shows that insurance predictors as a block do influence the odds of having insurance, i.e. Model 2 is better fitting than Model 1. Substantively, however, the impact is inconsequential. Differences across the models in odds ratios for each racial/ethnic-generational group compared to third-plus generation white children are not statistically significant at the .05 level.[4] There is one exception – the change from Model 1 for second generation Asian children is significant with a p-value of 0.043. Controlling for insurance predictors, the odds of having insurance compared to native whites are six percent points greater for second generation Asian children than when not controlling these factors.

Model 3 controls for socioeconomic factors. Each income bracket (below poverty, low, moderate) is significantly associated with lower odds of insurance compared to high income. Children in low-income households have the lowest relative odds of insurance coverage compared to those in below poverty level and moderate-income households. This finding may

[4] Adjusted Wald tests assess the significance of differences in odds ratios across models for each racial/ethnic-generational group. Results reported at the .1, .05 and .01 level are reported in Appendix 2.

reflect the predicament of the working poor that fall within the income bracket left out of structured forms of coverage such as government financed and employer supported health insurance. The odds of insurance coverage for children with parents who have less education are lower than those with more education: the odds of coverage for children whose parents did not earn a high school diploma are 42% less than those with parents who have beyond a beyond high school education.

This model demonstrates that socioeconomic factors do help to explain some of the variation between racial/ethnic-generational groups and native whites, but inequities persist. The adjusted Wald test statistic for this block of indicators is significant at the .01 level. Proving to be more substantive than with insurance predictors, the changes in odds ratios for each group from Model 1 to Model 3 are statistically significant (except second generation Asians). The pattern of change in the odds of 1^{st}, 2^{nd}, 3^{rd+} generation Hispanics and blacks is a similar, while the level of changes differ. Their odds ratios each change toward parity with native whites when SES is controlled. Comparing Model 1 and 3, the odds for first generation Hispanics children change from being .05 those of 3^{rd+} generation white children to being .08 and the change for second generation Hispanic children is from .32 to .54 when controlling for SES. The odds ratio of third-plus generation Hispanic children to native whites (.74) is not statistically significant, suggesting that the difference in insurance coverage is due to differences in socioeconomic status; i.e. income and education are primary barriers to access for Hispanics in the third-plus generation. Socioeconomic status also accounts for the difference in insurance coverage found between third-plus generation blacks and whites, as the difference in odds is nearly equal to one and is no longer statistically significant.

Model 4 includes both insurance predictors and socioeconomic factors. The change patterns between Model 1 and Model 4 mirror those found between Model 1 and Model 3. There are small magnitude changes in the odds ratios between Model 3 and Model 4. For black and Hispanic children this is in the direction of parity with native white children, meaning that combining of the variable sets explains more of the racial/ethnic-generation group differences to native whites. One exception is 3^{rd+} generation Hispanic children, where the change is away from parity. Of the insurance predictors, only receipt of government aid remains statistically significant, improving the odds of insurance coverage. Even when controlling for both sets, the differences between the groups and native whites are not fully explained. Substantial inequity remains for 1st, 2nd, 3^{rd+} generation Hispanics and 1st and 2nd generation Blacks. Asian children enjoy a preferred position with equal or often higher odds of having insurance than third-plus generation white children, regardless of household insurance predictors or SES.

Model 5 is a full model, which considers use of English as the primary language in the home. Predictably, for those households where English is not the primary language spoken the odds of having insurance are 50% lower than for those where English is the primary language. When language is controlled for in the model, the gap in likelihood of insurance between second and third-plus generation Hispanic children and native whites is no longer statistically significant, i.e. coverage parity is achieved. This suggests that when all other factors are held constant and there are no language differences for second generation Hispanics, there will also be no differences in coverage. English language acquisition could be a key factor toward equitable health coverage. As language use is a measure of assimilation, the finding supports the link between health access and assimilation. Language does not explain differences in insurance coverage for all racial/ethnic-generational groups. The odds of first generation Hispanic children

being insured when controlling for language remain 84% less than native whites. For black children language provides some explanatory power, although the first and second generations still have substantially lower odds of insurance than white children. Controlling for differences in language usage intensifies the higher odds second and third-plus generation Asian children have over native whites rather than equalizing differences. The odds ratio increases from 1.79 in Model 4 to 2.75 in Model 5[5]. This supplies further evidence to the advantaged position of 2nd and 3rd+ generation Asian children over native white children.

Summary of Model 5 – predicted probabilities

(*Insert Chart 2 here – Predicted Probability Summary Model 5*)

Controlling for racial/ethnic-generational variation in insurance predictors, socioeconomic status and language usage in the final logistic regression model equalizes the difference in likelihood of insurance coverage for some groups. However, the final model leaves unexplained, the statistically significant differences in odds of insurance to third-plus generation white children for first generation Hispanic children, first and second generation black children and second and third-plus generation Asian children. The differences in adjusted predicted probabilities are presented as estimated percentages of insurance coverage for each group in Chart 2. These probabilities were calculated setting the value of each covariate at the weighted mean value. Now, 72% of first generation Hispanic children with the mean characteristics are estimated to be insured. Odds ratios in the full model showed that the difference between second and third-plus generation Hispanic children is not statistically significant, meaning that the difference in their odds of insurance are not statistically different from native whites after

[5] These high figures reflect the instability of odds ratios when probability is very close to 1.00 or 0.00. The predicted probabilities for Asian children in the 2nd and 3rd+ generation when controlling for all covariates are .979 and .993.

controlling for covariates. The corresponding estimated percentage difference for each is approximately 2 percentage points. The odds ratio difference for Black children in the 1st and 2nd generation is statistically significant. The estimated percentage of first generation black children with insurance is approximately 14 percentage points lower than native white children with the same covariate characteristics. The percent of second generation black children is estimated to be 3 percentage points lower. The predicted probability comparisons help to make sense of the very large numbers that describe the differences in odds between second and third-plus generation Asian children and native whites. The estimated percent of second generation Asian children having insurance is approximately 4 points higher than native white children (5 points for third generation Asians).

Discussion:

The health status of the United States depends on the health of all children. Immigrant children and children with immigrant parents, a large and growing part of the population, are less likely to have insurance coverage. This means in many instances children are not receiving the routine and preventative care that promotes health. They also risk missing diagnosis and treatment for serious medical conditions. This study updates previous work on health access and provides a source of information by which to gauge successful uptake of previously uninsured children that should result from implementation of the Affordable Care Act. The focus on children from multiple racial and ethnic groups and immigrant generational status traces many lines of inequity and, in doing so, comments on patterns of assimilation.

This work reinforces the notion that race and ethnicity are fundamental structuring forces of social life in the United States that affect assimilation and access to resources and opportunities across generations of children. Despite a general pattern of improvement in

insurance coverage across generations, there are persistent and clear racial divisions. White children have higher rates of insurance than Hispanic and black children. Hispanic children are typically the most disadvantaged. Asian children in the second and third-plus generation are shown to hold a highly advantaged position in insurance coverage. It is important to note that while it is often generalized that immigrant children are less likely to have health insurance, this broad conclusion obscures the distinct differences evidenced here between various racial and ethnic groups.

Generational groups of Hispanic, black and Asian children demonstrate a progressive increases in insurance coverage, supporting a straight-line assimilation story within groups. Bu while the percentage of Hispanic and Asian children insured across each generation group increases, the levels of insurance coverage are segmented among the four groups. This is illustrated by viewing the prevalence of insurance amongst groups. As shown in Chart 1, 43% of first generation Hispanic children are insured, 84% of second generation and 91% third-plus generation. These levels most closely approach black children – first generation: 71%, second generation: 89%, third-plus: 92%. The comparative convergence of Asian and white children is shown as follows: first generation: 91% - 94%, second generation: 97% - 94%, third-plus generation: 99.5% - 94%. While Hispanic children align with the lower insurance rates of black children, Asian children match (and surpass) the advantaged position of white children, reflecting a pattern of segmented assimilation between groups. The pairing of Hispanic children and black children within each generational group illustrates, as discussed by Portes and Zhou (1993), their incorporation into the host society's social stratification system. While not as extreme as the second pattern of adaption proposed by Portes and Zhou – downward mobility into permanent poverty and assimilation into the underclass – the disadvantage evident among

Hispanic and black children suggests uneven or segmented assimilation. The pairing of Asian and white children on insurance suggest a different segmented adaption process – "growing acculturation and parallel integration into the white middle-class" (p. 82).

Another aspect of the results relates to a puzzle researchers have called the epidemiologic paradox, where children of immigrants, particularly those of Mexican descent, show better than expected health outcomes given their often disadvantaged social position in the American system of stratification (Markides and Coreil 1986). This health "advantage" may, however, disappear over successive generations (Padilla et al. 2009). Oddly, this advantage disappears while at the same time access to care for children of Mexican immigrants has been shown to improve across generations. Some researchers account for these paradoxical shifts by asserting an "unhealthy assimilation" in health-related behaviors (e.g. Antecol and Bedard 2006). As such, the paradox seems to be about how Hispanic and black immigrant children settle into a disadvantaged minority position in the U.S. stratification system.

This analysis has shown that inequities between some groups and third-generation whites are shown to persist even after controlling for household characteristics that may predict insurance, and parental socioeconomic status. Inequity of access is linked to negative health outcomes, increased birth weight of infants and higher rates of illness and health conditions. Understanding the mechanisms through which health care inequities are accounted for is a necessary step toward developing and implementing targeted interventions to remedy these inequities. Language is a key measure of and has been regarded a prerequisite for assimilation (Zhou 1997). Immigrants begin their adaption to the host country first through cultural or behavioral assimilation, of which language is a primary component (Gordon 1964). Lack of English proficiency limits one's options and opportunities in many spheres, representing a

barrier to multiple forms of assimilation – economic, cultural, structural, civic, etc. In my analysis, controlling for primary language in the home in conjunction with other factors seems to equalize insurance coverage inequities for second and third-plus generation Hispanics (Table 3, Model 5). The data suggest that if language were not a problem for these households their odds of having insurance could perhaps reach parity with native white children.

The ACA contains specific provisions to increase funding, resources, and services to improve language access (Youdelman 2011). For example the Act seeks to support the advancement of translation services (Department of Health and Human Services 2011).[6] It is important however to remember that 6% of native white children are estimated to be without insurance. So, even if parity in the odds of having insurance were reached, under current conditions many children would remain uninsured in the United States. Ultimately the Affordable Care Act aims to eliminate disparities in access through universal coverage.

In conclusion, by breaking out four key U.S. racial/ethic groups by generation and assessing inequities in health insurance, this study improves our understanding of access disparities and the trends of assimilation. While household characteristics and socioeconomic status are found to account for some of the differences between racial/ethnic-generational groups in insurance coverage, inequities remain. Key findings are, first, that Hispanic children are least able to access care while Asian children hold a particularly privileged position. Second, language emerges as a key factor in explaining disparities in insurance coverage for some Hispanic generational groups. This finding points to the need for more research on the effects of language and culture and processes of assimilation on health care access. Finally, the differences

[6] See HHS Plan to Reduce Racial and Ethnic Health Disparities strategy II.A.1: to promote the health care interpreting profession as an essential component of the health care workforce to improve access and quality of care for people with limited English proficiency.

identified within and between these groups provide crucial benchmarks for inequities of access. A major objective of the Affordable Care Act of 2010 is to ensure access to health care for millions of uninsured Americans. With the growing number of U.S. residents who are immigrant children and children of immigrants, these benchmarks will be instrumental in evaluation of reform and understanding the health of the Nation.

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Table 1. Weighted percent distributions and means of demographic and social characteristics for first, second, and third-plus generation children, by race/ethnicity. NSCH 2007

Variables	White 1st Gen *N*=604	White 2nd Gen *N*=3,358	White 3rd Gen *N*=56,796	Hispanic 1st Gen *N*=1,233	Hispanic 2nd Gen *N*=5,148	Hispanic 3rd Gen *N*=4,790	Black 1st Gen *N*=175	Black 2nd Gen *N*=765	Black 3rd Gen *N*=7,693	Asian 1st Gen *N*=130	Asian 2nd Gen *N*=617	Asian 3rd Gen *N*=328	Total
Demographic Features													
Mean Age, yr	11.33	8.69	9.38	11.39	7.37	8.43	11.75	8.12	9.54	10.72	7.78	9.06	9.46
Gender													
Female	50.5%	44.6%	48.4%	48.3%	48.3%	50.3%	51.7%	52.0%	49.7%	45.2%	54.6%	58.9%	48.8%
Male	49.5%	55.4%	51.6%	51.7%	51.7%	49.8%	48.3%	48.0%	50.3%	54.8%	45.4%	41.1%	51.2%
Primary language in home													
Not English	11.7%	7.8%	0.3%	87.9%	73.5%	5.9%	25.1%	9.6%	0.0%	72.1%	51.4%	0.0%	13.2%
English	88.3%	92.2%	99.7%	12.2%	26.5%	94.1%	74.9%	90.4%	100.0%	28.0%	48.6%	100.0%	86.8%
Insurance Predictors													
Work Status: Full Year Employee													
	91.4%	95.0%	92.9%	69.3%	76.6%	86.2%	86.0%	91.1%	81.3%	75.5%	89.4%	93.2%	88.3%
Aid Status: Received Aid													
	5.2%	5.2%	10.1%	21.0%	28.3%	21.5%	16.5%	15.2%	39.1%	4.2%	2.0%	0.7%	16.9%
Family Structure: single female, head of household													
	8.5%	6.4%	12.4%	19.5%	15.3%	28.5%	26.4%	22.2%	46.3%	12.9%	2.6%	12.3%	18.4%
Socioeconomic Status													
Household income to poverty ratio													
0<99% FPL	10.5%	5.4%	8.9%	57.9%	43.1%	17.8%	20.1%	18.4%	34.6%	14.8%	12.6%	1.3%	18.3%
100-199% FPL	11.0%	14.3%	17.1%	28.3%	30.1%	26.2%	30.0%	24.4%	27.6%	17.0%	10.6%	8.9%	20.9%
200-400% FPL	29.0%	30.4%	36.8%	9.4%	19.2%	32.3%	43.0%	28.6%	24.1%	29.9%	22.3%	28.7%	31.4%
>400% FPL	49.6%	49.8%	37.2%	4.3%	7.7%	23.8%	6.9%	28.6%	13.7%	38.3%	54.5%	61.1%	29.5%
Education Level													
Parent's													
< H.S.	1.5%	2.7%	5.8%	51.0%	44.8%	11.1%	15.8%	6.7%	13.0%	6.1%	7.1%	0.1%	12.8%
H.S. Grad	19.4%	16.7%	23.6%	22.6%	29.4%	31.0%	12.1%	20.4%	35.2%	27.3%	16.0%	2.7%	25.7%
> H.S.	78.4%	80.1%	70.3%	25.2%	24.3%	56.7%	71.6%	71.3%	51.2%	65.8%	76.3%	97.3%	60.9%

Table 2. Weighted percent distributions of language use in the home for first, second, and third-plus generation children, by race/ethnicity. NSCH 2007

Variables	White 1st Gen	White 2nd Gen	White 3rd Gen	Hispanic 1st Gen	Hispanic 2nd Gen	Hispanic 3rd Gen	Black 1st Gen	Black 2nd Gen	Black 3rd Gen	Asian 1st Gen	Asian 2nd Gen	Asian 3rd Gen	Total
Primary language in home													
Not English	11.7%	7.8%	0.3%	87.9%	73.5%	5.9%	25.1%	9.6%	0.0%	72.1%	51.4%	0.0%	13.2%
English	88.3%	92.2%	99.7%	12.2%	26.5%	94.1%	74.9%	90.4%	100.0%	28.0%	48.6%	100.0%	86.8%

Table 3. Odds ratio from logistical regression models predicting insurance coverage

	Odds Ratio				
	Insurance Coverage				
	Model 1 Base	Model 2 Ins Predict	Model 3 SES	Model 4 Both	Model 5 Full
Race/Ethnicity_Gen					
White_1st gen	1.0682	1.0774	0.9170	0.9440	1.0620
White_2nd gen	1.0420	1.0510	0.8987	0.9205	0.9955
Hispanic 1st gen	0.0494 ***	0.0493 ***	0.0822 ***	0.0904 ***	0.1570 ***
Hispanic 2nd gen	0.3244 ***	0.3166 ***	0.5367 ***	0.5621 ***	0.9254
Hispanic 3rd gen	0.6122 ***	0.6070 ***	0.7403	0.7121 **	0.7438
Black 1st gen	0.1653 ***	0.1641 ***	0.2086 ***	0.2060 ***	0.2519 ***
Black 2nd gen	0.5045 ***	0.5031 ***	0.5509 ***	0.5547 ***	0.5971 **
Black 3rd gen	0.7622 **	0.7270 ***	1.0316	0.9194	0.9003
Asian 1st gen	0.6421	0.6807	0.6549	0.7142	1.2418
Asian 2nd gen	1.8226 **	1.8846 **	1.5894	1.7882	2.7508 ***
Asian 3rd gen	12.2528 ***	12.7666 ***	8.7576 ***	9.0789 ***	9.1678 ***
Age	0.9910	0.9944	0.9894	0.9938	0.9908
Gender	1.0903	1.0921	1.0936	1.0859	1.0830
Language					
Other than English					0.5039 ***
Insurance Predictors					
Full Yr Employment		1.2481 **		1.0176	1.0031
Receive Gov't Aid		1.5187 ***		2.2637 ***	2.2407 ***
Single Female		0.8911		1.0312	1.0174
SES					
Income					
Below Poverty			0.3950 ***	0.2732 ***	0.2917 ***
Low Income			0.3108 ***	0.2720 ***	0.2804 ***
Mod Income			0.4797 ***	0.4725 ***	0.4742 ***
Parental Education Level					
Parent Below HS			0.5795 ***	0.5497 ***	0.5863 ***
Parent HS Grad			0.7385 ***	0.7128 ***	0.7236 ***
Model Goodness of Fit Statistics					
F-test	45.89 ***	38.13 ***	37.98 ***	35.53 ***	34.97 ***
Wald test[1]		5.28 ***	35.35 ***	28.69 ***	27.72 ***
degrees of freedom		(3, 81584)	(5, 81582)	(8, 81579)	(19, 81578)

**p < ,05; *** p < .01

[1]Adjusted Wald tests test the simultaneous effects of the added characteristics only (comparison to Model 1).

Chart 1. Unadjusted weighted percent distribution of insurance coverage for first, second, third-plus generation children by race/ethnicity. NSCH 2007

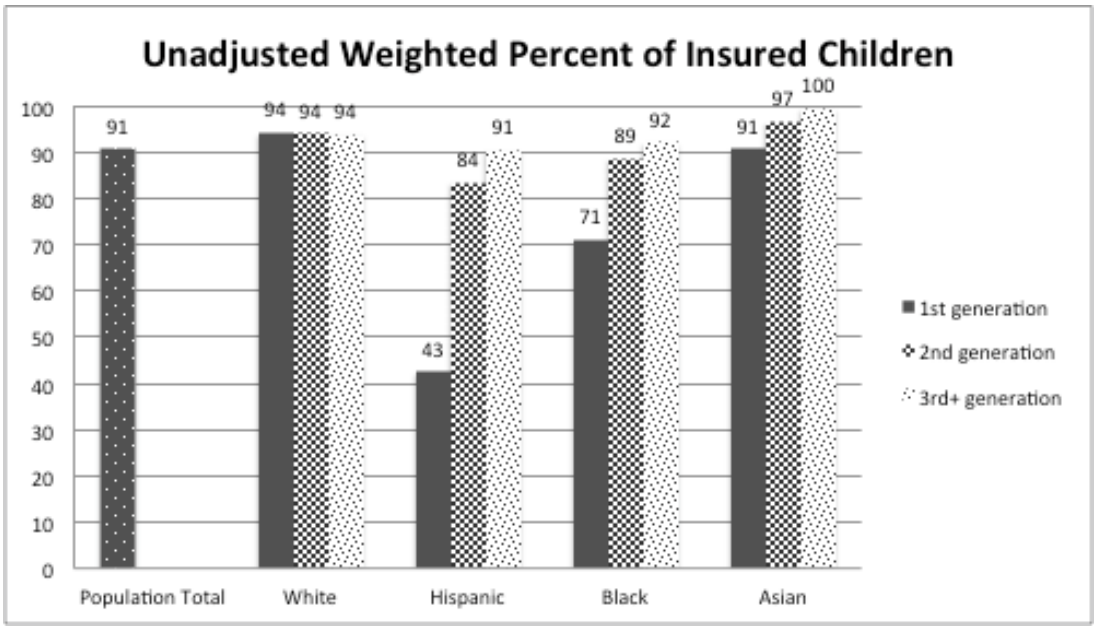
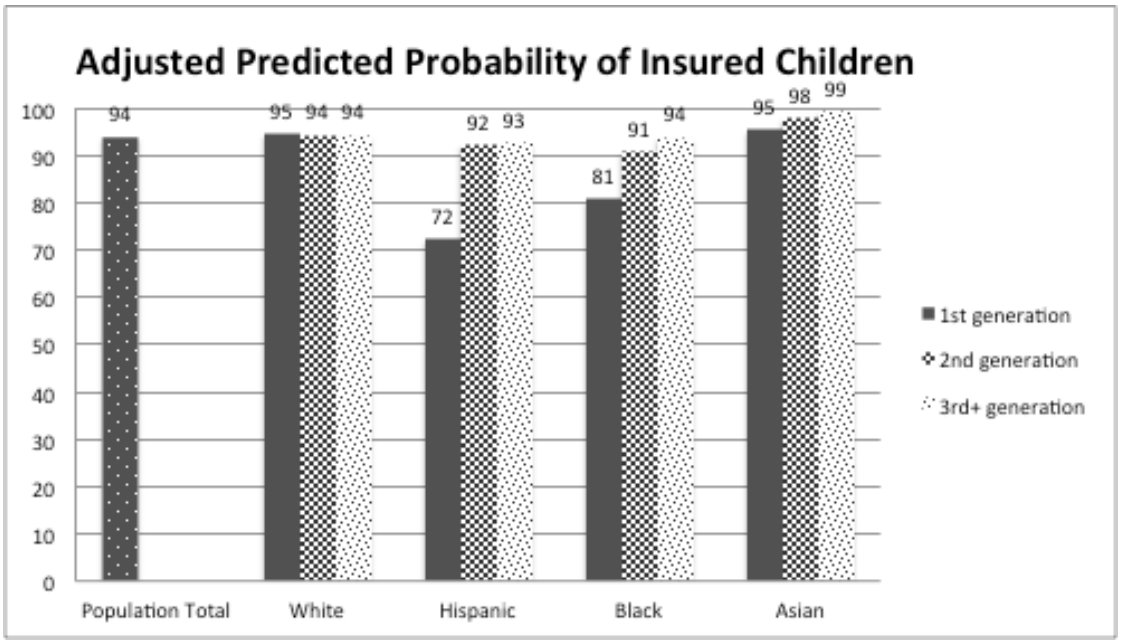


Chart 2. Adjusted weighted percent distribution of insurance coverage for first, second, third-plus generation children by race/ethnicity. NSCH 2007.



Appendix 1. Descriptive comparison of operationalized independent control variables.

Variables	**Operationalized by Burgos et al.**	**Operationalized by Brown et. al**	**Alterations necessary with NSCH data**
Age of Child	Continuous value	Age groups: 0-2, 3-5, 6-11, 12-17	Continuous value
Family Work Status	None	Categorized as: Full-time, full-year employee family; Full-time, part-year employee family; Part-time employee family; Self-employed family; Nonworking family	Based on working at least 50 out of 52 weeks in the previous year; categorized as: Full-year employee family; non full-year employee family.
Family Aid Status	None	None	Based on receipt of government cash aid or food stamp; categorized as: Recipient or non-recipient
Family Structure	Marital/gender status: Head of household; dichotomized as single female or otherwise	Marital status: Married couple with children, Single adult with children	Same as Burgos et al.
Poverty Income Ratio	Ratio of reported household income to the poverty threshold in the calendar year categorized as <1.0, 1.01 to 1.30, 1.31 to 1.85, or >1.85	Below poverty, 100%-199%, 200%-299%, >300% of poverty level	Below poverty, 100%-199%, 200%-399%, >400% of poverty level
Parents' Educational Level	Head of household; categorized as <9 years, 9 to 12 years, or >12 years	Parent who is primary worker; <12 years, H.S. Grad, At least some college	Mother's education, (or Father, Non-parent respondent as substitute); categorized as < H.S., H.S. Grad, or > H.S.
Primary Language	Language spoken in the home	None	Based on language spoken in the home; categorized as: English or non-English

Appendix 2. Statistical Significance differences between odds ratios within and across logistic regression models predicting insurance coverage. NSCH 2007.

	Odds Ratio														
	Insurance Coverage														
	Model 1 Base		Model 2 Ins Predict		m1-m2	Model 3 SES		m-1-m3	Model 4 Both		m1-m4	Model 5 Full		m1-m5	m4-m5
Race/Ethnicity_Gen															
White_1st gen	1.0682		1.0774			0.9170		- - -	0.9440		- -	1.0620			- - -
White_2nd gen	1.0420		1.0510			0.8987		- - -	0.9205		- - -	0.9955			- - -
Hispanic 1st gen	0.0494	***	0.0493	***		0.0822	***	- - -	0.0904	***	- - -	0.1570	***	- - -	- - -
		+++		+++			+++			+++			+++		
Hispanic 2nd gen	0.3244	***	0.3166	***		0.5367	***	- - -	0.5621	***	- - -	0.9254		- - -	- - -
		+++		+++			+								
Hispanic 3rd gen	0.6122	***	0.6070	***		0.7403		- - -	0.7121	**	- - -	0.7438		- - -	- - -
Black 1st gen	0.1653	***	0.1641	***		0.2086	***	- - -	0.2060	***	- - -	0.2519	***	- - -	- - -
		++		++			++			++			+		
Black 2nd gen	0.5045	***	0.5031	***		0.5509	***	- -	0.5547	***	- -	0.5971	**	- - -	- - -
		+					++			++			0.0954		
Black 3rd gen	0.7622	**	0.7270	***		1.0316		- - -	0.9194		- - -	0.9003		- - -	- - -
Asian 1st gen	0.6421		0.6807		-	0.6549			0.7142			1.2418		- - -	- - -
		+		+			+			+					
Asian 2nd gen	1.8226	**	1.8846	**	- -	1.5894		- -	1.7882			2.7508	***	- - -	- - -
		+++		+++			+++			++			+		
Asian 3rd gen	12.2528	***	12.7666	***	-	8.7576	***	- - -	9.0789	***	- - -	9.1678	***	- - -	- -
Age	0.9910		0.9944			0.9894			0.9938			0.9908			
Gender	1.0903		1.0921			1.0936			1.0859			1.0830			
Language															
Other than English												0.5039	***		
Insurance Predictors															
Full Yr Employment			1.2481	**					1.0176			1.0031			
Receive Gov't Aid			1.5187	***					2.2637	***		2.2407	***		
Single Female			0.8911						1.0312			1.0174			
SES															
Income															
Below Poverty						0.3950	***		0.2732	***		0.2917	***		
Low Income						0.3108	***		0.2720	***		0.2804	***		
Mod Income						0.4797	***		0.4725	***		0.4742	***		
Parental Education Level															
Parent Below HS						0.5795	***		0.5497	***		0.5863	***		
Parent HS Grad						0.7385	***		0.7128	***		0.7236	***		
Model Goodness of Fit Statistics															
F-test	45.89	***	38.13	***		37.98	***		35.53	***		34.97	***		
Wald test[1]			5.28	***		35.35	***		28.69	***		27.72	***		
degrees of freedom			(3, 81584)			(5, 81582)			(8, 81579)			(19, 81578)			

**p < .05; *** p < .01

Within model: prob>F: + < .1; ++ < .05; +++ < .01

Across model: prob>F: - < .1; - - < .05;- - - < .01

[1]Adjusted Wald tests test the simultaneous effects of the added characteristics only (comparison to Model 1).