Lost at the starting Line?
Disparities in Immigrant Women's Birth Outcomes and the Health Status of their US Citizen Children Over Time

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ABSTRACT:

This paper uses the *Early Childhood Longitudinal Study-Birth Cohort* to study the impact of some states' Medicaid/CHIP expansion to cover all pregnant women and children on immigrant women's birth outcomes and the health status of their citizen children into their Kindergarten years. I employ a difference-in-differences strategy to estimate the extent to which birth outcomes differ for immigrant women residing in less generous states (relative to other immigrants in generous states) from the birth outcomes experienced by naturalized women. I also examine the impact of prenatal care on the long-term health status of the children. I expect to find that the availability of appropriate prenatal care results in improved birth outcomes for children of immigrants. In addition, the health status of the infants is a strong predictor of the health outcomes of the children through their kindergarten years, although this impact is attenuated by the children' nutrition and eating habits.

1. The research question and the study's aims

About one in every four live births in the US occurred to immigrant women in 2010, while the majority of births to foreign-born women (56%) were to Hispanic mothers (Pew Research Center, 2002). However, pregnant immigrants constitute a particularly vulnerable population because their status in the U.S. limits their access to prenatal and delivery services. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) prohibited states from using federal Medicaid or CHIP funds to cover unqualified immigrants as well as legal permanent residents who have not lived in the country for more than five years. Some states chose to use state funds to cover immigrants who are excluded from Medicaid and/or CHIP under the federal restrictions. As of May 2010, 15 states have state-funded programs in place to cover lawfully residing recent immigrant children and/or pregnant women.

The recently enacted CHIP reauthorization law of 2009 (known as CHIPRA) includes a new option, often referred to as "ICHIA", that allows states to receive federal funds for providing Medicaid and CHIP coverage to lawfully residing immigrant women and children, or pregnant women regardless of their legal status. However, by 2011, only 23 states have elected to cover lawfully residing children and/or pregnant women, while only 13 states cover all pregnant women regardless of their legal status under the CHIP unborn child option. Are those states that have not taken up ICHIA option missing out on this important opportunity? What are the impacts of providing Medicaid/CHIP on the birth outcomes of immigrant women? Does Medicaid/CHIP eligibility rules influence children's health conditions?

This project sets out to use the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B) data to answer these questions. Specifically, I aim to 1) study the impact of prenatal care expansion using state funding in some states on immigrant women's prenatal care utilization and birth outcomes, and 2) to explain the health disparities among U.S. citizen children with immigrant mothers and those with native-born mothers from birth through their kindergarten years.

2. A review of the literature informing the study

Contrary to the predictions from health risk models that focus on socioeconomic factors, children of immigrants are found to have similar or better health outcomes than children of the native-born, although immigrant families usually have higher poverty rates, lower education levels, and less access to health care. This is termed as the "Healthy Immigrant Paradox" (Markides and Coreil, 1986; Adler and Ostrove 1999; Goldman 2001), and is largely attributed to the fact that usually healthier people self-select to migrate to the U.S. (Janevic et al., 2011). To deal with the selection bias, some researchers have used the 1996 Welfare Reform to exploit the association between exogenous variations in health care coverage policies and prenatal care use (Kaestner, 1999; Brien and Swann, 2001; Currie and Grogger, 2002; Figlio et al., 2009). However, this line of literature looks at the U.S. population as a whole and does not focus on the immigrant population. Cho (2011) is the first study that looks at the impact of the 1996 Welfare Reform on Mexican immigrants' infant mortality rates. However, because the data used do not have information on women's citizenship status or length of stay in the U.S., she can only compare all Mexican immigrant women relative to Mexican-origin native women, which is suboptimal since the eligibility to Medicaid/CHIP is determined by the legal status and length of stay, and not by country of origin.

Another theme in the immigrant health literature concerns the fact that the health of immigrants seems to worsen throughout the process of adapting to the host society (Lara et al. 2005), despite the fact that immigrants in the U.S. generally experience an improvement of their standards of living (e.g. Chiswick 1978, 1980). Some studies have specifically investigated associations between mothers' duration of residence in the U.S. and the health of their U.S.-born infants. It is found that diet and smoking, which are behaviors that are believed to be easily influenced by acculturation, are important predictors of birth outcomes, providing some evidence for the negative acculturation theory (Landale et al., 2000; Ceballos & Palloni, 2010; Teitler et al., 2012). However, the question about the impact of acculturation on immigrants' health is far from settled (Jasso et al., 2004). While some researchers found that the Healthy Immigrant Paradox gets lost over time (Riosmena, 2011), others found that the immigrant health advantage persists across a number of health outcome measurements (Macmillan et al., 2011). These recent studies bring scientific vigor and renewed interests into the field. However, these studies only look at one side of the story, namely how adult immigrants have acquired behaviors of the host country and to what extent the assimilation influences their health outcomes. No study to my knowledge has focused on the U.S. born children to look at the other side of the story, which I call the "cultural residual" among second generation immigrants. Little is known about the

dynamic between inherited ethnic health behaviors and the dominant U.S. culture in which these children of immigrant are born and raised, and their differential impact on children's health outcomes.

3. The research design, methods, and data sources

This paper relies on the between-state policy variation in Medicaid/CHIP rules regarding immigrants and estimates a difference-in-differences (DID) model to study the impact of providing Medicaid/CHIP access to immigrant women on their utilization of prenatal care and the birth outcomes of their new born children. The ECLS-B data is suited for this study because it provides detailed information on parents' immigration history, health insurance coverage, health conditions, health behaviors as well as health care usage, so that it's possible to control for maternal characteristics associated with both the demand for prenatal care and the infant's health at birth.

In addition, ECLS-B followed the children from birth to their Kindergarten years, so that we can compare the health outcomes of children with immigrant mothers and those with native-born mothers over time. I will use Propensity Score Matching method to select a group of newborn babies with native parents for comparison with the newborn babies with immigrant parents, and trace their health development through their Kindergarten years. Since ECLS-B provides longitudinal data on children's nutrition and eating habits, as well as objective measurements of children's health (such as height, weight, BMI, prevalence of asthma, mental problems etc.) through the years, it is possible to use this data set to explicitly test for the "cultural residual" theory.

Although all children in the sample are U.S. born and are eligible for CHIP, some immigrant mothers who themselves are not qualified for publicly provided health insurance might fail to sign their children up either because of lack of knowledge or because of their fear of being deported if they are undocumented. I will compare the uptake rates of CHIP among children of immigrants with children with native-born parents, as well as among children residing in more generous states that provide state-only Medicaid/CHIP for pregnant immigrant women with those residing in less generous states to test whether there is a "chilling effect". Since the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has no eligibility restrictions based on the legal status of immigrants, it will serve as a nice comparison to CHIP uptake.

4. The likely policy significance of the proposed research

The contribution of this study is many fold. It advances the literature on immigrants' health by testing both the "healthy immigrant paradox" and the "cultural residual" hypothesis using a unique data set. By exploiting state differences in eligibility rules and using appropriate econometric methods, this study explicitly deals with the selection bias that has plagued most of the existent literature on immigrant women's birth outcomes and immigrants' health outcomes.

In addition, this study can have direct policy impact. As states are considering whether to take up ICHIA option, the results of this study might help state policy makers to understand the impact of providing coverage to immigrant women on their birth outcomes and the health of their U.S. citizen children.

While the nation is undergoing the most comprehensive health care reform in history, immigrants' health is not at the center of the debate. The Patient Protection and Affordable Care Act (ACA) maintains current federal immigrant eligibility restrictions in Medicaid, including the five-year ban for most lawfully residing, low-income immigrant adults. Undocumented immigrants are expressly exempted from individual mandate, are not eligible for Medicare, Medicaid or CHIP, and are not allowed to participate in state insurance exchanges. This study will help to illustrate the impact of denying publicly provided health insurance to pregnant immigrant women, and calls for a national policy debate about how to best address the needs of this particularly vulnerable population.

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