

Maternal Health and Health Behaviors among Foreign-born and Native-Born
Black Women:
The Role of Maternal and Neighborhood Characteristics

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Short Abstract

This paper contributes to the literature on neighborhood context and race/ethnic disparities in maternal health, health behaviors, and birth outcomes among native-born and foreign born black women. Several studies have shown foreign-born black women to have favorable birth outcomes compared to native-born black women. Relatively few data sets, however, permit detailed analyses of maternal health, health behaviors and birth outcomes among native-born and foreign-born blacks. This study is based on a prospective study of low-income women who sought prenatal care in 2000-2004 in community-based health centers in Philadelphia, PA. The survey data were merged with tract level measures of residential segregation, (index of dissimilarity, exposure, and isolation), crime rates, and survey-based measures of neighborhood-level social and physical disorder and corresponding measures based on administrative data. Maternal characteristics are available from survey data.

Extended Abstract

This paper contributes to the literature on neighborhood context and race/ethnic disparities in maternal health, health behaviors, and birth outcomes with a focus on native-born and foreign born black women. We integrate individual and community-level determinants in a multilevel analysis of maternal health and health behaviors with a focus on the role of individual-level attributes and neighborhood context, e.g., residential segregation, neighborhood-level safety and social and physical disorder.

Although there is a vast literature on the determinants of birth outcomes and infant mortality in the United States, reasons behind the persistent racial/ethnic variation in these outcomes are not well understood (Culhane and Elo 2005; Institute of Medicine 2006). Recent studies have further shown that birth outcomes vary substantially among native-born and foreign-born black women, with foreign-born black women having significantly better outcomes than native-born black women (e.g., Collins and David 1997; Hummer et al. 1999). Relatively few data sets, however, have permitted detailed analyses of maternal health and health behaviors among native-born and foreign-born blacks. Thus the question remains whether better birth outcomes of foreign-born black women are the result of differences in health status, health related behaviors, psychosocial characteristics and differential socioeconomic status and/or residential context. This study is designed to explore what role each of these factors may play in generating differences in birth outcomes among native-born and foreign-born black women.

DATA AND METHODS

We used data from a prospective cohort study of low income women designed to investigate the role of stress and neighborhood context on race/ethnic differences in pregnancy outcomes in Philadelphia, PA funded by the Centers for Disease Control and Prevention. English and Spanish speaking women seeking prenatal care at community-based health centers between February 1999 and September 2004 were recruited into the study at the time of their first prenatal care visit. These health centers serve low-income residents throughout the city and provide primary care, including prenatal care, to adults and children regardless of the person's ability to pay. Community-based female interviewers with experience interviewing disadvantaged women conducted the interviews using standardized questionnaires. Information was obtained about women's socio-demographic characteristics, health behaviors, maternal health, psychosocial characteristics, social support, housing, and perceptions of neighborhood conditions (Culhane et al., 2002).

Of the 5,303 eligible women, 4,879 (92%) consented to participate in the study. Based on the women's home address at the time of the survey approximately 95% (4,653) of the women were successfully geocoded to their residential census tract and block group. The sample for the present analysis consist of 2,491 native-born black women and 285 foreign-born blacks women. Thus about 10% of the non-Hispanic blacks in the study were foreign born. Our preliminary results indicate that the foreign-born women in the study were significantly different from their native-born counterparts on a number of characteristics associated with birth outcomes. For example, the foreign-born women were significantly older, married, and they were more likely to have post high-school education. Foreign-born black women were also less likely to have

smoked cigarettes after finding that they were pregnant, and they were less likely to have used alcohol or marijuana in the 12-months prior to pregnancy. They were also more likely to report better self-rated physical and emotional health than native-born black women (Table 1).

Foreign-born black women also more likely to report that their neighborhoods were a good place to live and the foreign-born black women lived in less segregated census tracts (Table 1).

ANALYTIC STRATEGY

We use multilevel random intercept models to assess the effects of individual-level socio-demographic, psychosocial and neighborhood-level characteristics on maternal health and health behaviors (Goldstein 1995). Of particular interest is whether the effects of individual-level attributes and neighborhood context vary between foreign-born and native-born black women.

We begin the analysis by examining whether (1) neighborhood context and (2) individual-level attributes explain differences in maternal health and health behaviors among foreign-born and native born black women. We then estimate models that combine the contextual-level and individual-level predictors of maternal health and health behaviors and test whether these associations vary between native-born and foreign born black women.

References

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Table 1: Selected Characteristics of Native-Born and Foreign-Born Black Study Women, Philadelphia, PA 1999-2004 (Percent unless otherwise noted)

Characteristic	Native-born black N=2,491	Foreign-born black N=285	p-value
Socio-Demographic Characteristics			
Age (Mean, SD)	23.8 (5.6)	27.5 (6.6)	0.000
Marital Status			
Married	13.7	40.7	0.000
Educational attainment			
Less than high school	35.2	23.2	0.000
High school	47.4	44.7	
Post high school	17.4	32.0	
Maternal Health Status			
Self-reported physical health			0.011
Excellent/Very good	55.5	62.5	
Good	32.7	31.1	
Fair/poor	11.8	6.4	
Self-reported mental health			0.000
Excellent/Very good	48.2	61.8	
Good	32.3	27.9	
Fair/poor	19.6	10.4	
Health Behaviors			
Smoking after pregnancy	21.7	6.3	0.000
Alcohol use 12-mths prior to preg.	35.4	27.1	0.005
Marijuana 12-mths prior to preg.	22.7	8.1	0.000
Neighborhood Context			
<i>Self-reported neighborhood quality</i>			0.000
Good place to live	41.4	63.0	
Okay place to live	36.5	29.2	
Not a really nice place to live	22.1	7.8	
<i>Residential Segregation</i>			
Index of Dissimilarity Mean(SD)	0.41 (0.12)	0.359 (0.12)	0.000
Exposure Index: Mean(SD)	0.10 (0.16)	0.202 (0.24)	0.000
Isolation Index: Mean(SD)	0.79 (0.25)	0.655 (0.31)	0.000

Note: Index of Dissimilarity: The index of dissimilarity varies between 0 and 1 with higher values indicating a greater degree of segregation. Exposure Index: The exposure index varies between 0 and 1 with higher values indicating a lower degree of segregation. Isolation Index: The isolation index varies between 0 and 1 with higher values indicating a higher degree of segregation. The majority group used to create the measures was Non Hispanic White.