

## **Single Mothers, Union History, and Health at Midlife**

**Kristi Williams<sup>a</sup>**

**Sharon Sassler<sup>b</sup>**

**Adrienne Frech<sup>a</sup>**

**Elizabeth Cooksey<sup>a</sup>**

**Fenaba Addo<sup>b</sup>**

### **Abstract**

Recent policy initiatives emphasize that encouraging marriage can improve the lives of disadvantaged single mothers and their children. Although, on average, married individuals are healthier than the unmarried, little research examines the association of marriage or partnering with the later health of single mothers. We analyze data from the NLSY79 to determine whether marriage or cohabitation following the birth of a child to a single mother has consequences for her health at midlife. We focus on never-married mothers, distinguish unions that endure from those that dissolve, and consider whether associations between unions and health depend on the paternity status of the mother's spouse/partner. Preliminary results indicate that single mothers who marry the biological father of their child report better health at age 40 than those who remain unpartnered, regardless of whether the marriage endures. Subsequent analyses will employ propensity score matching to determine whether results are robust to selection processes.

<sup>a</sup>The Ohio State University; <sup>b</sup>Cornell University

## Single Mothers, Union History, and Health at Midlife

A stated goal of the 1996 welfare reform was to encourage the formation of two-parent families, especially among low-income single mothers (1, 2). More recently, President Bush has proposed that welfare reauthorization include the allocation of \$300 million in funds from the Temporary Assistance to Needy Families (TANF) program for marriage promotion efforts (3) and several states have responded by implementing their own marriage promotion policies (1). Among the reasons commonly offered in support of such programs are the well-documented average benefits of marriage for the health and well-being of adults. However, whether these benefits extend to single mothers—those most affected by marriage promotion policies—is unknown. Further, little is known about the consequences of cohabitation for single mothers' health—a glaring omission given its prevalence among this subpopulation. Almost half of children born to never married mothers in the U.S. (4) and about 75% of children born to all unmarried mothers (5) will eventually live with their mothers in a cohabiting relationship.

One cannot assume that single mothers who later enter partnerships will receive the same health benefits from marriage or cohabitation as those observed for the average person. On any number of indicators, single mothers are not average. First, they are substantially more likely than other women to be poor. Approximately 30% of women who have a nonmarital birth live below the poverty line (6). Single mothers also have lower levels of education and are more likely to be African American (7-8). Marriage improves economic living standards for the average adult (9) and socioeconomic status is positively associated with health and well-being. Thus, marriage may provide especially strong health benefits to single mothers because they are in greatest need of the economic resources and economies of scale that marriage typically provides.

Several other factors, however, (e.g., high rates of marital instability among single mothers, a lack of “marriageable men,” and poor marital quality) conversely suggest that marriage may offer fewer health and well-being benefits (or even pose risks) to single mothers compared to other women. In support of this idea, Williams and colleagues (10) analyze longitudinal data from the NSFH that spans a period of 5-8 years and find that, compared to other women, single mothers (which include the divorced and never-married) do not receive the same physical health benefits from entering an enduring marriage. Further, entering and exiting marriage is worse for the health of single mothers than for other women.

This study was among the first to question the assumption that the benefits of marriage apply equally to single mothers, yet several questions remain unanswered. First, because the sample included both never-married and divorced mothers, the consequences of marriage and cohabitation specifically for never-married mothers (who are the primary focus of marriage promotion policies) remains unclear. Second, it is important to distinguish whether single mothers marry or enter cohabiting unions with the father of their child as this may have more positive consequences for health and well-being than entering a union with a new partner. Third, a short-term perspective in which health and well-being outcomes are measured contemporaneously with influential life course transitions may grossly underestimate true long-term associations between union status and health. Mounting evidence suggests that transitions and strains experienced at one stage of the life course have cumulative effects on health and well-being, many of which emerge decades later (11). This lag occurs in part because many chronic illnesses have long latency periods (12) and many stressful life events and transitions have fewer negative consequences for mental health than do the chronic secondary strains that they produce—strains that, by definition, accumulate over time (11).

In the present study, we address these questions by using data from the 1979 National Longitudinal Survey of Youth (NLSY79) to identify the association of single mothers' subsequent marital and

cohabitation histories with their health and well-being in midlife (age 40), a time when health problems are beginning to emerge and when chronic strains associated with union transitions (or the lack thereof) have likely accumulated over time. We distinguish women who marry or cohabit with the biological father of their first child from those who enter unions with new partners. We also consider whether a woman's union endures or dissolves by age 40.

## **Data**

The NLSY79 is an ongoing panel survey which began in 1979 with 12,686 young men and women ages 14-22 who comprised a nationally representative sample of youth plus oversamples of black, Hispanic, military and poor white respondents. Over time the minority and economically disadvantaged white oversamples were dropped, but the remaining respondents have been re-interviewed annually through 1994 and biennially since. These data provide detailed information on marital transitions and fertility events collected contemporaneously over a period of close to 30 years. In the past several rounds the NLSY79 has also begun collecting detailed information on the health and well-being of respondents as they have aged into midlife.

We limit our sample to women who a) had a pre-marital birth and b) had reached age 40 by the 2004 survey wave as this is the age at which the dependent variable of self-assessed health is measured. Of the 1,296 women who had a pre-marital birth, 1,096 (84.8%) completed this assessment and reported self-rated health at age 40. A total of 910 single mothers (including 589 non-Hispanic black, 175 non-Hispanic white, and 146 Hispanic women) provide data for all of the measures described below. Supplementary analyses will assess the need to impute data on missing cases.

## **Measures**

### Dependent Variable: Self-Assessed Health

*Self-assessed health* is measured at age 40 with responses to a single question: "In general, would you say your health is excellent, very good, good, fair, or poor?" Responses are coded from 1 "Poor to 5 "Excellent," with higher values indicating better health. Self-assessed health is highly predictive of subsequent morbidity and mortality (13).

### Single Motherhood Status

We define a single mother to include those women who, by age 40, had a nonmarital birth while never-married and lived with that child in her household.

### Marital and Cohabitation Histories

Six dummy variables distinguish the following marital and cohabitation histories for single mothers who have reached age 40: (1) entered a single enduring marriage with the biological father (n=258), (2) entered a single enduring marriage with someone other than the biological father (n=213), (3) entered and exited a marriage with the biological father (n=157) (4) entered and exited a marriage with someone other than the biological father (n=160) (5) never married; entered a cohabitation with the biological father (n=139) and (6) never married; entered a cohabitation with someone other than the biological father (n=54). The reference category consists of continually never-married & unpartnered women (n=210).

### Control Variables & Other Intervening Variables

The following control variables are measured prior to age 40: race/ethnicity (non-Hispanic black, non-Hispanic white, Hispanic), US nativity, age at first birth, cohabitation status at first birth, respondent's cognitive ability, respondent's family composition at age 14 (whether or not she lived with both biological parents), and respondent's family socioeconomic status (mother's educational attainment).

## **Preliminary Results**

Table 1 presents results of OLS regressions of age-40 self-assessed health on six categories of union history. Results are robust to the use of ordered logistic regression; OLS results are presented for ease of interpretation.

Column 1 presents base models that distinguish those single mothers who marry by age 40 from those who cohabit and those who remain continually unmarried and unpartnered (reference group). The results show that single mothers who marry have better self assessed health at age 40 than those who remain unpartnered. However, there is no difference in the health of those who cohabit and those who remain unpartnered.

Column 2 disaggregates those in each type of union based upon the paternity status of the partner. These results underscore the importance of considering paternity status, as it is only single mothers who marry the biological father of their first born child who report better health than their continually unpartnered counterparts. Those who marry a new partner or who cohabit with either the biological father or the new partner report similar levels of health at age 40 as those who remain unpartnered.

Column 3 further disaggregates each type of marriage based upon whether it endures or ends by age 40. Data limitations do not allow for a similar disaggregation of cohabiting unions. These results suggest that marrying the biological father of one's child offers health benefits at midlife regardless of whether the marriage endures or dissolves by age 40. Marriage to a new partner has no consequences for health regardless of whether it endures or dissolves.

Because more than 60% of the sample of single mothers is non-Hispanic black, we replicate the analyses in Column 3 among the sample of black mothers. (Insufficient sample sizes in union categories do not allow us to present a separate analysis of white and/or Hispanic mothers). Column 4 shows that, similar to the sample as a whole, black single mothers who marry the biological father of their child report better health at age 40 than those who remain unpartnered, regardless of whether the marriage endures or ends. An additional significant coefficient is revealed in this subsample. For black single mothers, even marrying a new partner is associated with better health at age 40, but only if that marriage dissolves.

## **Additional Analyses**

Although our preliminary findings suggest that marriage provides relatively long-term health benefits to single mothers, it is important to consider the potential bias introduced by differential selection into (or out of) marriage. That is, associations of union histories with later health may be partly due to the influence of earlier health on the probability of entering and remaining in a union. The best evidence from studies examining the average association of marriage with health indicates that differential selection into marriage accounts for some but not the majority of the association (2). However, no previous research has prospectively examined the impact of marriage and cohabitation on the health and well-being of women who had a pre-marital birth. Health-based selection into marriage may be more prominent among single mothers than in the average population because marriage is less common among single mothers.

Additional analyses will employ propensity score matching to address selection. Propensity score techniques approximate a quasi-experimental design with secondary data by comparing individuals in a "treatment group" (in this case, single mothers who experience particular union transitions) to those in a "control group" (who remain unpartnered) with a similar likelihood of experiencing the treatment. Logistic regression is used to estimate the propensity that women will experience a particular union transition. The propensity score is then used to match cases in the treatment and control group on shared observed covariates. The estimated differences between the treatment and control groups on outcome *Y*

represent the average effect of a particular configuration of union transitions (i.e. entering a single enduring marriage) for respondents with a comparable likelihood of experiencing this union transition. The NLSY79 includes a rich array of variables likely to be associated with union transitions among single mothers and that can be used in the estimation of the propensity score. These include but are not limited to: religious affiliation, marital expectations, age at first birth, and parental socioeconomic status.

Our analyses are well underway and we envision having a complete paper ready for presentation by late fall, 2008.

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**Table 1. OLS Regression Coefficients Estimating the Effect of Union Transitions on Age 40 Self-Assessed Health Among Women who had a Premarital Birth**

	Age 40 Self-Assessed Health			
	Total Sample			Black Women
	(1)	(2)	(3)	(4)
<b>Aggregate union history<sup>a</sup></b>				
Never married but cohabited	.107 (.124)	---	---	---
Married	.224 (.098)*	---	---	---
<b>Union history disaggregated by paternity status<sup>a</sup></b>				
Never married but cohabited with biological father	---	.199 (.142)	---	---
Never married but cohabited with a new partner	---	.005 (.187)	---	---
Married biological father	---	.340 (.114)**	---	---
Married a new partner	---	.172 (.103) <sup>†</sup>	---	---
<b>Union history disaggregated by paternity status and dissolution<sup>a</sup></b>				
Never married but cohabited with biological father	---	---	.209 (.142)	.266 (.180)
Never married but cohabited with new partner	---	---	.004 (.187)	.269 (.210)
Married biological father and it endured	---	---	.397 (.124)**	.314 (.150)*
Married biological father and it ended	---	---	.270 (.135)	.341 (.170)*
Married new partner and it endured	---	---	.136 (.116)	.089 (.130)
Married new partner and it ended	---	---	.215 (.123) <sup>†</sup>	.300 (.145)*
<b>Constant</b>	2.397 (.230)***	2.400 (.230)***	2.412 (.231)***	2.566 (.254)***
R <sup>2</sup>	.042	.046	.048	.053
N	910	910	910	589

Notes: <sup>†</sup> p < .10; \*p < .05; \*\*p < .01; \*\*\*p < .001 (two-tailed tests); Unstandardized OLS regression coefficients (standard errors in parentheses); Model controls for the following variables, measured prior to age 40: race/ethnicity (non-Hispanic black, non-Hispanic white, Hispanic), US nativity, age at first birth, cohabitation status at first birth, respondent's mother's educational attainment, cognitive ability, and respondent's family composition at age 14.

<sup>a</sup> Compared to continually never-married and unpartnered.