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RESEARCH ARTICLE

# Reexamining the Effects of Family Structure on Children's Access to Care: The Single-Father Family

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**Objective.** To examine the effects of family structure, focusing on the single-father family, on children's access to medical care.
**Data Source.** The 1999 and 2002 rounds of the National Survey of America's Families (NSAF) including 62,193 children ages 0–17 years.
**Study Design.** We employ a nationally representative sample of children residing in two-parent families, single-mother families, and single-father families. Multivariate logistic regression is used to examine the relationship between family structure and measures of access to care. We estimate stratified models on children below 200 percent of the federal poverty threshold and those above.
**Data Collection/Extraction Method.** We combine data from the Focal Child and Adult Pair modules of the 1999 and 2002 waves of the NSAF.
**Principal Findings.** Children who reside in single-father families exhibit poorer access to health care than children in other family structures. The stratified models suggest that, unlike residing in a single-mother family, the effects of residence in a single-father family do not vary by poverty status.
**Conclusions.** Children in single-father families may be more vulnerable to health shocks than their peers in other family structures.

**Key Words.** Family structure, health insurance, children's access to care

## Background and Existing Literature

The proportion of children residing in single-father families in the United States has increased dramatically over the past 30 years. The number of single-father families quintupled between 1970 and 2003 (U.S. Bureau of Census 2003), a phenomenon largely due to an increase in single-parent families headed by previously married fathers (Garasky and Meyer 1996). By 2003, single-father families represented 17 percent of all single-parent families with children (U.S. Bureau of Census 2003). While this represents only 6 percent of

all families with children, single-father families are one of the fastest growing family types, increasing at a rate faster than single-mother families (Meyer and Garasky 1993; Bianchi 1995).

### *Single-Father Families*

Much of the existing research on single-father families illustrates the demographic and socioeconomic differences between them, two-parent married families, and single-mother families. Single fathers are less likely to be poor, are more likely to be employed, and are better off overall economically than single mothers (Meyer and Garasky 1993; Bianchi 1995); but they are worse off economically, measured both by poverty status and labor force participation, than married couples with children (Brown 2000).

Research focusing on children from single-parent homes suggests that they grow up lacking important economic and social resources that are available in two-parent homes, and that this deficiency weakens future opportunities (McLanahan and Sandefur 1994). Extant literature finds that children growing up in single-parent families have lower educational attainment than children from married households (McLanahan and Sandefur 1994), are more likely to give birth as a teenager (Wu and Martinson 1993; McLanahan and Sandefur 1994), have increased risk for negative health outcomes (Dawson 1991), and are more likely to become welfare dependent (Garfinkel and McLanahan 1986).

Prior work finds that several important child outcomes vary along gender of the single parent. Hoffman and Johnson (1998) find that adolescents who reside in father-custody families have a significantly higher risk of drug use compared with adolescents living in other family structures. Moreover, youth living with a single father have more school problems and take part in risky health behaviors more frequently than children living in single-mother families or married-parent families (Harris, Cavanagh, and Elder 2002). Children in single-father families exhibit worse behavior, and are slightly disadvantaged in terms of cognitive skills compared with children living with a single mother (Downey, Ainsworth-Darnell, and Dufur 1998). Adults who grew up in a single-father household obtain approximately one-half year less

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of education than their counterparts who grew up in single-mother households (Downey, Ainsworth-Darnell, and Dufur 1998).

The goal of this paper is to examine variations in access to health care among children reared in different family structures. Previous work examines access to care among single-mother and two-parent families; our primary contribution lies in extending this inquiry to single-father families.

### *Conceptual Framework*

Differences in combined family income between children in two-parent and one-parent families suggest that the former enjoy better access to health care. The potential for having multiple adult workers in the household implies that two-parent families on average have increased household incomes and a higher likelihood of having access to employer-sponsored coverage than families with a single adult. Accordingly, we hypothesize that children in two-parent families are more likely to have private insurance coverage and are less likely to have public coverage than children in single-parent families. Family income is also negatively associated with being uninsured, suggesting that children in two-parent families are less likely to be uninsured than their peers in single-parent families. Income also facilitates the utilization of health care above and beyond its effects on insurance coverage as most private insurance plans include deductibles and require co-pays at the time of care receipt.

It is also important to consider the nonfinancial dimensions along which family structure influences children's access to care. Single-parent families may lack the social capital, parental communication, and parental supervision skills (e.g., Coleman 1988) that two-parent families have. All of these skills are salient in parents' decisions to seek care for their children as well as their ability to arrange such care. A contrasting theory suggests that single mothers seek more medical care on their children's behalf than parents in two-parent households because single mothers lack a partner with whom they can affirm whether the severity of their children's symptoms necessitates medical care (Angel and Worobey 1988). If single mothers indeed have stronger preferences for health care utilization then we would also expect them to be more likely to insure their children. This theoretical ambiguity is reflected in the empirical literature on family structure and children's access to care; existing studies paint a somewhat complicated portrait of the interplay between residing with a single mother and health care outcomes among children.

Prior work offers minimal conceptual guidance regarding the influence of the gender of the single parent on access to care outcomes among children.

What little is known implies that children in single-father families likely fare worse on access to care outcomes than children in other family structures. Existing research suggests that children's health investments are disproportionately made by mothers (Case, Lin, and McLanahan 2000; Case and Paxson 2000). If health investments are indeed the purview of mothers, then children residing with single fathers may use less care and be less likely to have insurance coverage than children in single-mother families. Furthermore, Downey (1994) finds that single mothers are more involved with day-to-day activities of children (examples include attending school events and knowing their children's friends) than single fathers, suggesting that mothers may be more attuned to changes in their children's health conditions than single fathers. This may translate into higher care receipt among children of single mothers relative to those of single fathers.

*Existing Literature on Family Structure and Children's Access to Care*

While there exists some research on differences in child well-being associated with residing in a single-father family virtually nothing is known about the health care experiences and insurance coverage of children residing in this family structure. The existing research regarding the effects of family structure on health care outcomes compares the experiences of children living with single mothers to those living with married parents. This literature provides a mixed picture of the association between residing in a single-mother household versus a two-parent household and the probability of having any physician visit in the past year, having a usual source of care, and having a well-child visit in the past year.

Several studies suggest that children of single mothers use more health care, as measured by having any physician visit in the past year (Cafferata and Kasper 1985). A recent study finds that this is true only for low socioeconomic status (SES) families (Heck and Parker 2002). On the contrary, Cunningham and Hahn (1994) report that children in single-mother families use less care, and that single mothers are less likely to report having a usual care provider for their children (Simpson et al. 1997). Finally, several studies suggest that single-mother families do not differ from two-parent families in health care use (Newacheck 1992; Chen and Escarce 2006), although one study reports that this is only true for high SES households (Heck and Parker 2002).

Similar to the research on health care utilization, existing studies examining the associations between family structure and children's health insurance

coverage focus exclusively on comparisons between single-mother and two-parent families. Studies find that the children of single mothers are less likely to have private health insurance and are more likely to have public health insurance compared with children in two-parent families (Angel and Worobey 1988), and that they are also more likely to be uninsured (Cunningham and Hahn 1994; Weinick and Monheit 1999). Weinick and Monheit (1999) find that the association between children's health insurance and family structure differs across income levels. Their results suggest that at lower income levels children in two-parent families are actually *more* likely to be uninsured compared with children in single-parent families. Heck and Parker (2002) find an additional nuance in the interplay between family structure, income, and insurance coverage among children. Specifically, they find that rates of uninsurance decline sharply with increasing maternal education among children in two-parent families but not do not decline appreciably among children of single mothers.

Our study builds upon the previous literature through its inclusion of single-father families in the examination of the relationship between family structure and children's access to care. Extant studies often remove single-father families from analyses due to small sample sizes, (e.g., Cunningham and Hahn 1994; Heck and Parker 2002; Chen and Escarce 2006) or group single-father families with single-mother families or do not draw a distinction of parent gender (e.g., Cafferata and Kasper 1985; Angel and Worobey 1988; Newacheck 1992; Simpson et al. 1997; Weinick and Monheit 1999).

## METHODS

The data for the study are from the National Survey of America's Families (NSAF), a nationally representative probability sample of the civilian, noninstitutionalized population under the age of 65 years. The NSAF was conducted by the Urban Institute with the goal of collecting information on the health and well-being of children and adults in the aftermath of the shift of fiscal and administrative responsibilities for social policy programs from the federal government to state governments (Abi-Habib, Safir, and Triplett 2002). The NSAF employed a two-stage sampling frame, augmenting its first-stage random-digit dialing frame with a supplementary in-person interview area sample to capture households without telephones. The low-income population was oversampled as were residents of 13 targeted states.[1]

We combine the Focal Child and Adult Pair data files of the 1999 and 2002 rounds of the NSAF for our analyses. This combined file includes information at the child and family levels for approximately 70,000 children between the ages of 0 and 17 years. A household adult defined as the "most knowledgeable adult" (MKA) regarding the sample child's education and health care was chosen as the respondent for the sample child. All information in the data file was gathered from the MKA. The overall response rates for the Focal Child files were 65 and 55 percent for the 1999 and 2002 rounds, respectively.

The key independent variables in our analyses are measures representing different family structures, which were created from a family structure variable available in the Focal Child file of the NSAF. We use three types of families in our analyses: families with two married parents in the household, families headed by a single mother, and families headed by a single father. Children living with their married biological or adoptive parents as well as children living with a biological parent and a step-parent are categorized as living with two parents.[2] Children living with only a biological or adoptive mother are categorized as living in single-mother households and children living with only a biological or adoptive father are categorized as living in single-father households. We exclude children living with two cohabiting but unmarried adults and we also exclude children living with neither of their parents. We appreciate that family structure may play an important role in these children's access to medical care; however, they are not the focus of our current study.

Access to care, our outcome of interest, is a complex phenomenon encompassing a variety of dimensions (Weissman and Epstein 1994). Using the framework developed in Andersen and Aday (1978), insurance coverage is conceptualized as an important component of "potential access"—it facilitates health service use through its reductions in health-related financial expenditures; however, its attainment alone does not guarantee medical care receipt. The health insurance coverage of children is a dynamic phenomenon, therefore, we employ measures that capture coverage over the past year (Tang, Olson, and Yudkowsky 2003; Olson, Tang, and Newacheck 2005). The specific vector of insurance measures includes: full-year private coverage, full-year public coverage, full-year hybrid (public+private) coverage, part-year coverage, and full-year uninsurance. Public insurance includes coverage provided by the following programs: Medicaid, the State Children's Health Insurance Program (SCHIP), Indian Health Service, and Medicare. Private insurance includes coverage from a current or former employer or union,

coverage purchased directly from an insurance company, and military health insurance (CHAMPUS).

Having a usual source of care that is not an emergency room is used in our study as an additional measure of potential access. We also use two utilization variables to measure access to care: having a medical provider visit in the past year and having a well-child provider visit in the past year. Utilization measures such as these are usefully thought of as "realized access" measures. Having received care suggests that the presence of financial and/or nonfinancial barriers to care were either minimal or surmountable.

Equation (1) depicts the relationship between family structure and insurance coverage that we estimate using logistic regression

$$Coverage = \alpha + \beta_1 \times SingleMom + \beta_2 \times SingleDad + X\phi + \varepsilon \qquad (1)$$

The vector *Coverage* represents the vector of coverage variables; separate models are run for each of the five coverage measures. $\beta_1$ and $\beta_2$ are the coefficients of interest: the regression-adjusted difference in coverage between children in single-mother and single-father households, respectively, compared with children in two-parent households. The vector $X$ includes the following covariates: immigrant status, sex, age, fair/poor health status, presence of a limiting condition, race, the education of the MKA, categorical income dummies, and the presence of a working parent in the household (including a dummy indicating that there is missing information on this measure).[3] The error term is represented by $\varepsilon$. Similar logistic regression models were estimated for the utilization measures and having a usual source of care, with the insurance coverage measures added as additional covariates. For each model, we test the hypothesis that the effect of living with a single mother is statistically identical to the effect of living with a single father ($\beta_1 = \beta_2$).

The results of Heck and Parker (2002) suggest that the effects of family structure on children's access to care differ across SES. To test this hypothesis, we estimated stratified models in which the sample was separated into children living in families with incomes below 200 percent of the federal poverty level (FPL) and children living in families with income at or above this threshold.[4]

We report average incremental effects in addition to odds ratios (ORs) in order to translate the results from the logistic regressions into percentage point impacts. To calculate average incremental effects, we first estimated the logistic regression of interest and calculated the average of the predicted probabilities of the dependent variable when all children are coded as living in two-parent families. We then performed the same calculation first coding all

children as living in single-mother households and then as living in single-father households. The difference between the average predicted probability calculated when all children are coded as living in a single-mother family and the average predicted probability calculated when all children are coded as living in a two-parent family is the average incremental effect associated with living in a single-mother family. The same procedure was used to calculate the average incremental effect associated with living in a single-father family.

All data analysis was performed with *Stata 9*. Descriptive statistics and regression results were calculated using the weights provided by the NSAF; standard errors were calculated using Taylor-series linearization. These weights correct for the complex sample design of the survey as well as make the appropriate adjustments for unit nonresponse.

## RESULTS

### *Descriptive Statistics*

Included in the sample are the 62,193 children who had non-missing information for all of the independent and dependent variables and covariates. Table 1 contains descriptive statistics tabulated by family structure. Three percent of sample children lived in single-father families and 22 percent of sample children lived in single-mother families. Children living with single mothers were the most socioeconomically disadvantaged children in the sample. While children living with single fathers were better-off socioeconomically than children living with single mothers, they were relatively disadvantaged compared with their peers living in two-parent households. Illustratively, over two-thirds of children living in single-mother families had household incomes under 200 percent of the FPL; the comparable figures for children in single-father households and household with two parents are 35 and 27 percent, respectively.

There are striking differences in insurance coverage across children residing in different family structures. Approximately three-fourths of children living with both parents had full-year private coverage while only slightly more than one-third of children living with single mothers had full-year private coverage. Children of single mothers had exceptionally high rates of full-year public coverage (35 percent) relative to their peers in other family structures (13 percent for children in single-father families and 8 percent for children in two-parent families); they were also the most likely to experience partial-year insurance coverage. Children of single fathers and single mothers

Table 1: Descriptive Statistics

| | *Two-Parent (n = 46,313)* | | *Single-Mother (n = 13,855)* | | *Single-Father (n = 2,025)* | | *Combined (n = 62,193)* | |
|---|---|---|---|---|---|---|---|---|
| | *Mean* | *SE* | *Mean* | *SE* | *Mean* | *SE* | *Mean* | *SE* |
| Access measures | | | | | | | | |
| Any visit in the past year | 0.870 | 0.004 | 0.864 | 0.006 | 0.798 | 0.021 | 0.867 | 0.003 |
| Any well-child visit in the past year | 0.666 | 0.005 | 0.692 | 0.007 | 0.571 | 0.020 | 0.669 | 0.004 |
| Has a non-ER usual source of care | 0.945 | 0.002 | 0.906 | 0.005 | 0.873 | 0.014 | 0.935 | 0.002 |
| Insurance coverage measures | | | | | | | | |
| Full-year coverage: private only | 0.758 | 0.005 | 0.370 | 0.008 | 0.633 | 0.019 | 0.673 | 0.004 |
| Full-year coverage: public only | 0.079 | 0.002 | 0.350 | 0.008 | 0.129 | 0.011 | 0.137 | 0.003‘ |
| Full-year coverage: private and public only | 0.027 | 0.002 | 0.075 | 0.005 | 0.047 | 0.010 | 0.038 | 0.002 |
| Part-year coverage | 0.069 | 0.002 | 0.129 | 0.007 | 0.107 | 0.016 | 0.083 | 0.003 |
| Full-year uninsured | 0.067 | 0.004 | 0.076 | 0.005 | 0.084 | 0.010 | 0.069 | 0.003 |
| Covariates | | | | | | | | |
| Immigrant | 0.040 | 0.002 | 0.026 | 0.002 | 0.019 | 0.006 | 0.037 | 0.002 |
| Age | 8.524 | 0.042 | 8.799 | 0.079 | 9.909 | 0.152 | 8.623 | 0.038 |
| Female | 0.486 | 0.004 | 0.503 | 0.008 | 0.429 | 0.019 | 0.488 | 0.003 |
| Family income <50% FPL | 0.022 | 0.001 | 0.172 | 0.007 | 0.042 | 0.008 | 0.054 | 0.002 |
| Family income b/t 50–100% FPL | 0.056 | 0.003 | 0.227 | 0.007 | 0.080 | 0.013 | 0.092 | 0.003 |
| Family income b/t 100–150% FPL | 0.083 | 0.002 | 0.170 | 0.006 | 0.105 | 0.012 | 0.102 | 0.002 |
| Family income b/t 150–200% FPL | 0.109 | 0.003 | 0.118 | 0.006 | 0.125 | 0.014 | 0.111 | 0.003 |
| Family income b/t 200–300% FPL | 0.205 | 0.004 | 0.160 | 0.006 | 0.237 | 0.017 | 0.197 | 0.003 |
| Family income >300% FPL | 0.526 | 0.005 | 0.152 | 0.006 | 0.411 | 0.021 | 0.444 | 0.005 |
| Fair or poor health | 0.031 | 0.001 | 0.088 | 0.005 | 0.022 | 0.004 | 0.043 | 0.002 |
| Has a limiting condition | 0.078 | 0.002 | 0.131 | 0.004 | 0.094 | 0.012 | 0.089 | 0.002 |
| Black | 0.075 | 0.003 | 0.386 | 0.010 | 0.166 | 0.020 | 0.143 | 0.003 |
| Hispanic | 0.154 | 0.004 | 0.199 | 0.006 | 0.121 | 0.012 | 0.163 | 0.003 |
| Other race | 0.058 | 0.002 | 0.035 | 0.003 | 0.041 | 0.008 | 0.053 | 0.002 |
| White | 0.712 | 0.004 | 0.380 | 0.008 | 0.672 | 0.021 | 0.642 | 0.004 |
| MKA has<high school degree | 0.095 | 0.004 | 0.178 | 0.008 | 0.097 | 0.012 | 0.112 | 0.003 |
| MKA has high school degree | 0.568 | 0.005 | 0.684 | 0.009 | 0.658 | 0.022 | 0.595 | 0.004 |
| MKA has at least a college degree | 0.337 | 0.005 | 0.139 | 0.006 | 0.245 | 0.019 | 0.293 | 0.004 |
| No working parents in the household | 0.024 | 0.002 | 0.283 | 0.009 | 0.134 | 0.013 | 0.082 | 0.002 |
| 1+ working parent in the household | 0.971 | 0.002 | 0.687 | 0.009 | 0.811 | 0.016 | 0.907 | 0.003 |
| Whether parents work missing | 0.004 | 0.001 | 0.029 | 0.003 | 0.056 | 0.011 | 0.011 | 0.001 |

All means, proportions, and standard errors are adjusted for the complex survey design of the NSAF.

MKA, most knowledgeable adult; NSAF, National Survey of America's Families; FPL, federal poverty level.

were slightly more likely to spend the entire year without coverage than children living with two parents (8 percent for children living with a single-father or a single-mother, 7 percent for children living with two parents). Roughly one-fifth of children in single-father and single-mother families experienced at least 1 month without coverage, compared with 14 percent of children in two-parent families.

Children in single-mother and two-parent families were similar in their likelihood of having a provider visit in the past year (86 and 87 percent, respectively) while children in single-father households had a lower probability of having had a visit (80 percent). The same pattern is seen for the remaining access measures, with children living in single-father households having lower overall rates of well-child care (57 percent compared with 69 percent for children in single-mother households and 67 percent for children in two-parent households) and a lower likelihood of having a usual source of care (87 percent compared with 91 percent for children in single-mother households and 95 percent for children in two-parent households).

*Logistic Regression Results*

The logistic regression results (Table 2) suggest that family structure is independently associated with insurance coverage net of the effects of economic and demographic covariates. Regression results show that children in both single-father and single-mother families are less likely to have full-year private coverage and are more likely to spend part of the year without coverage compared with children in two-parent families. The adjusted effect of living with a single mother on the likelihood of having full-year public coverage is both statistically significant and large in magnitude: the estimated incremental effect of 4 percentage points represents a 30 percent shift from the baseline sample proportion of 14 percent. Living in a single-father family does not exhibit a statistically significant association with the likelihood of having full-year public coverage or the likelihood of having full-year hybrid coverage relative to living with two parents. An important result is the finding that the adjusted effects of family structure on spending the entire year without coverage are of opposite signs for single-father and single-mother families: the adjusted effect associated with living with a single mother is $-1.5$ percentage points (22 percent *decrease* relative to the baseline sample proportion) while the corresponding effect for living with a single father is $+1.6$ percentage points (23 percent *increase* relative to baseline).

Table 2: Logistic Regression Results

| *Dependent Variable* | *Single-Mother Family* | *Single-Father Family* |
|---|---|---|
| Insurance coverage | | |
| Full-year coverage: private only | 0.644 (0.570, 0.727)*** *– 0.058* | 0.715 (0.567, 0.901)*** *– 0.044* |
| *Ho: Single Mom = Single Dad* | $p<.407$ | |
| Full-year coverage: public only | 1.620 (1.427, 1.840)*** *0.041* | 1.063 (0.826, 1.368) *0.005* |
| *Ho: Single mom = single dad* | $p<.001$ | |
| Full-year coverage: private+public | 1.446 (1.166, 1.793)*** *0.013* | 1.416 (0.908, 2.206) *0.012* |
| *Ho: Single Mom = Single Dad* | $p<.927$ | |
| Part-year coverage | 1.164 (0.991, 1.368)* *0.011* | 1.427 (1.042, 1.956)** *0.028* |
| *Ho: Single Mom = Single Dad* | $p<.230$ | |
| Full-year uninsured | 0.725 (0.600, .877)*** *– 0.015* | 1.310 (0.955, 1.796)* *0.016* |
| *Ho: Single Mom = Single Dad* | $p<.001$ | |
| Other access measures | | |
| Any visit in the past years | 1.299 (1.117, 1.510)*** *0.023* | 0.686 (0.516, 0.911)*** *– 0.041* |
| *Ho: Single Mom = Single Dad* | $p<.001$ | |
| Any well-child visit in the past year | 1.130 (1.037, 1.231)*** *0.023* | 0.766 (0.631, 0.930)*** *– 0.054* |
| *Ho: Single Mom = Single Dad* | $p<.001$ | |
| Has usual source of care | 0.985 (0.826, 1.175) *– 0.001* | 0.439 (0.337, .571)*** *– 0.053* |
| *Ho: Single Mom = Single Dad* | $p<.001$ | |

Coefficients are reported as odds ratios. 95% confidence intervals in parentheses. Average incremental effects in italics.

$n = 62{,}193$ for all models.

*$p<.10$,

**$p<.05$,

***$p<.01$.

All models include the following controls: immigrant status, sex, age, income dummies, fair/poor health, presence of limiting condition, race dummies, MKA education dummies, and dummies for the presence of a working parent in the household (including a "missing parent working" dummy).

Models for utilization and access measures include the additional controls: had full-year public coverage, had full-year coverage that included public and private coverage, uninsured part of the year, and uninsured all year.

All models account for the complex survey design of the NSAF.

MKA, most knowledgeable adult; NSAF, National Survey of America's Families.

The results from the models on the other access to care measures display a consistent pattern: children in single-father families fare worse on access measures than children in two-parent families while children in single-mother

families enjoy comparable or better access to care than children in two-parent families. Importantly, the hypothesis that the effects of family structure are homogenous across single-mother and single-father families is rejected at the $p<.001$ level for each of these measures, highlighting that gender of the single parent has important implications for children's health care outcomes. The regression-adjusted average incremental effect associated with living in a single-father family is a 4 percentage point decrease in the probability of having any provider in the past year (OR: 0.69). Living with a single father is associated with an estimated 5 percentage point decrease in the probability of having a well-child visit in the past year and in the probability of having a usual source of care. All of these coefficients are significant at the $p<.01$ level.

*Stratified Analyses*

Table 3 contains the results of the stratified logistic regression models. These results imply that the association between access to care and living in a single-mother household varies by income while the association between access to care and living in a single-father household is consistent across income levels. Regardless of income level, living with a single father is associated with a decrease in the probability of having had any visit in the past year, although it should be noted that the $p$-value of .15 for the low-income sample trends toward but does not meet common thresholds of statistical significance. Living with a single father is also associated with a decrease in the probability of having had a well-child visit in the past year across income levels as well as a decrease in the probability of having a usual source of care.

Children living in single-mother families with incomes $<200$ percent FPL are more likely to have had a provider visit in the past year and are more likely to have had a well-child visit in the past year than children living in two-parent families with similarly low income levels. However, children living in higher-income single-mother families have similar levels of care receipt as children living in higher-income two-parent families. Children in higher-income single-mother families are slightly less likely to have a usual source of care than their counterparts in two-parent families (average incremental effect of 1 percentage point) while children in lower-income single-mother families and lower-income two-parent families have statistically indistinguishable likelihoods of having a usual source of care.

*Limitations*

There are several limitations of this study that deserve careful attention. Our regression-adjusted estimates of the effects of family structure are both statis-

Table 3: Results Stratified by Income

| | *Single-Mother Family* | | *Single-Father Family* | |
|---|---|---|---|---|
| *Measure* | *< 200% FPL* | *≥ 200% FPL* | *< 200% FPL* | *≥ 200% FPL* |
| Any visit in the past year | 1.497*** | 1.102 | 0.714 | 0.678** |
| | (1.224, 1.829) | (0.869, 1.396) | (0.451, 1.131) | (0.495, 0.931) |
| | *0.043* | *0.008* | *− 0.045* | *− 0.037* |
| Any well-child visit in the past year | 1.214*** | 1.059 | 0.765* | 0.780** |
| | (1.074, 1.370) | (0.926, 1.212) | (0.558, 1.047) | (0.621, 0.954) |
| | *0.040* | *0.011* | *− 0.058* | *− 0.051* |
| Has a non-ER usual source of care | 1.089 | 0.787* | 0.376*** | 0.517*** |
| | (0.869, 1.365) | (0.597, 1.037) | (0.244, 0.581) | (0.365, 0.732) |
| | *0.005* | *− 0.010* | *− 0.082* | *− 0.032* |

Coefficients are reported as odds ratios. 95% confidence intervals in parentheses. Average incremental effects in italics.

$N = 21{,}491$ for <200% FPL model; $n = 40{,}702$ for ≥200% FPL models.

*$p < .10$,

**$p < .05$,

***$p < .01$.

All models include the following controls: immigrant status, sex, age, fair/poor health, presence of a limiting condition, race dummies, MKA education dummies, dummies for the presence of a working parent in the household (including "missing parent working" dummy) had full-year public coverage, had full-year coverage that included private and public coverage, uninsured part of the year and uninsured all year.

The <200% FPL models include the following income dummies: <50% FPL, 50% to <100% FPL, 100% to <150% FPL.

The >200% FPL models include a dummy for family income between 200% and <300% FPL.

All models account for the complex survey design of the NSAF.

MKA, most knowledgeable adult; NSAF, National Survey of America's Families.

tically significant and qualitatively important; however, we are unable to assert causality due to the observational nature of the study design. Furthermore, as relatively little is known about single-father families, it is difficult to identify the potential causal mechanisms driving our results. We provide a few hypotheses below; however, we fully appreciate that these constitute a cursory first pass at an issue that deserves careful future inquiry. An additional limitation of our study is that our health status measures are limited in their ability to adequately capture child health. It would be ideal to have health measures that include child reports since, as we discuss below, parental self-reports may be influenced by gender of the parent and therefore may introduce bias in the estimates of interest. Finally, it is important to mention that our vector of outcomes reflects only a subset of the many inputs to access to care and we must therefore exercise caution in generalizing our results to other dimensions of access to care.

## DISCUSSION

We find that family structure exhibits an important association with children's access to care, even after adjusting for a variety of demographic and socio-economic characteristics. Our findings mirror previous research on the differences between single-mother and two-parent families. We build upon the current literature by providing new evidence on the association between residing in a single-father family and health care outcomes among children. This is a particularly salient exercise given that single-father families are becoming increasingly prevalent in the United States. Our results imply that children in single-father families have worse access to care relative to children in two-parent families, which sharply contrasts with the finding that children in single-mother families have comparable if not better access to care than children living with two parents.

Why single parents of different genders exhibit contrasting behaviors regarding their children's medical care is a fruitful area for future research. There exist several potential pathways through which gender of the single parent influences children's health care. Single fathers and single mothers may hold different perceptions of children's health status and these perceptions may translate into different patterns of care receipt. In our sample, children in single-mother families are four times more likely to be reported in fair or poor health than children in single-father families and they are also more likely to be reported as having a limiting condition. Although these parental reports may reflect objective differences in child health, it is also likely that they reflect differences in perceived health. The NSAF asks parents of children who are eligible for but not enrolled in public insurance programs why their children are not enrolled. It is illustrative that single fathers are more likely than single mothers to report that their children do not need insurance as the primary deterrent to enrollment. A study by Waters et al. (2000) supports the hypothesis that the inputs influencing perceptions of child health differ for mothers and fathers. They find that mothers' own health influences reporting regarding their children's health, while fathers' own health has no influence on reports of child health. This potential differential reporting among parents of different sexes implies that the measurement of child health in large-scale surveys should move beyond parental reports to include child and provider reports of health.

The differences in health care coverage and utilization across children of single-father and single-mother families and utilization may also be a reflection of the risk preferences of the resident parent. Calculations from the 2004

Medical Expenditure Survey show that men are almost twice as likely as women to agree or strongly agree with the statement "I am more likely to take risks than the average person" (author calculations). Using a sample of working-age adults, Monheit and Vistnes (2006) find that risk preferences shape their insurance enrollment decisions; it is reasonable to infer that these preferences also influence the enrollment decisions that adults make on behalf of their children.

We conclude by highlighting an important policy implication of our findings. Any concerted policy efforts aimed at increasing the insurance coverage and health care utilization of single-father families must focus heavily on outreach efforts that extend beyond the traditional social service umbrella of medical providers caring for low-income populations and welfare offices. Our finding that these children are relatively less likely to have contact with a medical provider coupled with findings from previous research that single fathers are less likely than their peers in other family structures to participate in welfare programs motivates this statement (Manning and Lichter 1996; Brown 2000). Effective programming must utilize a broader-based intervention strategy (e.g., a school-based model) if it is to hold the promise of being efficacious in increasing access to care among children living in single-father families.

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## NOTES

1. These states are: Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, Washington, and Wisconsin.
2. We also ran all models excluding children living with a biological or adoptive parent and a step-parent. The results are similar in this specification.

3. We also estimated models excluding the observations that were missing information on the presence of a working parent in the household; the results are robust to the exclusion of these children.
4. It is important to clarify that the stratified models control for family income. Models on the low-income (<200 percent FPL) subsample include the following dummies: income <50 percent FPL, income 50 to <100 percent FPL, income 100 to <150 percent FPL. The reference category is income 150 to <200 percent FPL. Models on the higher-income subsample include a dummy for income 200 to <300 percent FPL. The reference category in these models is income ≥ 300 percent FPL.

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