Family complexity, children's health insurance coverage, and access to quality health care

BRIEF ABSTRACT
Previous research has found that insurance coverage often varies *within* families; many families are partially insured (some members are insured while others are uninsured) and among fully-insured families, family members often have coverage from different sources (employer-based insurance, Medicaid, Medicare, S-CHIP, privately purchased, etc.) (e.g. Vistnes and Schone 2008). In this paper, we investigate whether greater family structure complexity is associated with higher levels of health insurance discordance among family members and whether this, in turn, is associated with less access for children to high-quality health care. To do this, we use National Health Interview Survey data from 2006-2008 to examine several indicators of children's access to and use of health care, including children's use of preventative care, whether they have a usual source of care, and whether they went without needed care in the previous year (N=61, 126).

EXTENDED ABSTRACT
Family demographers and health inequality scholars are just beginning to explore how family structure is related to children's access to health care. As is well-documented in the demography literature, children's living arrangements have become increasingly complex. What this complexity means for children's outcomes in numerous domains, such as schooling, has been the subject of recent investigation by many scholars. Although a budding field of research documents differences in health status and outcomes for children by family structure, little of this research has been able to identify and test specific mechanisms that relate family structure to children's health. In this paper, we identify one such mechanism – discordance in family health insurance coverage—and test its association with children's access to quality health care.

Diverse health insurance coverage patterns can exist within a single family or household because of the multiple ways that people qualify for and obtain health insurance coverage (Amey, Seccombe, and Duncan 1995; Hanson 2001; Vistnes and Schone 2008). For example, it is possible that in a single family the youngest children may qualify for Medicaid, older children may be eligible for SCHIP, one parent may be able to purchase individual coverage under employer-sponsored health insurance, and the other parent may be uninsured because they have no access to health insurance except through the individual health insurance market. Complex patterns of insurance coverage are not uncommon within married parent with children households, but they are even more common for single-parent families (Vistnes and Schone 2008) or for families with a family composition change (Nielsen and Garasky 2008). Most previous research in this area has used fairly simple categorizations of family structure, generally comparing insurance for children in married parent households to those in single-parent households, but this may miss important differences among subsets of married parents (e.g. stepfamilies) and single mothers (e.g. cohabiting partner families) and ignores the non-trivial percentage of children living with grandparents and other non-parent adults. Thus, this paper will document the complexity in insurance arrangements among families using

a more refined measure of family structure. Additionally, most previous research does not distinguish between whether insurance discordance is between parents (or adults) and children or among children. We hypothesize that discordance in insurance coverage among children may be particularly problematic because it may make it harder for parents to coordinate and plan health care for their children. Alternative types of coverage often provide access to different doctors and require different co-payments and compliance with alternative administrative rules. Managing multiple complex systems adds to the administrative tasks of families (Strach 2007), and this may be particularly problematic for families with caregivers who work long hours, have less capacity for managing complexity (due to low levels of education or for whom English is not their primary language), or who are already managing eligibility and compliance with other programs such as foodstamps, EITC, or TANF.

Our hypothesis is that more complex family structures are associated with greater discordance in health insurance coverage among family members and that this is associated with less access to quality health care. Although we could not find any research that examined the effects of family complexity in insurance coverage with children's health care access, there are numerous studies which examine related issues and suggest that our main hypothesis is plausible. First, two studies have found that the health insurance coverage status of family members affects insured family members' own use of health care (Hanson 1998) and reports of health status (Nielsen and Garasky 2008). Both studies find that having uninsured family members results in poorer outcomes for insured individuals as compared with their peers who have no uninsured family members. Thus, there is support for the hypothesis that family members' coverage is relevant to an individuals' health, independent of those individuals' own health care coverage. It also suggests that having some children within the household without insurance coverage will be negatively associated with care for insured children. Second, other research shows that *stability* of health insurance matters for children's access to high quality health care. For example, Cassedy et al. (2008) find that one in five children have at least one gap in health insurance coverage in a two-year period and that children who have gaps in health insurance coverage are much more likely than those with continuous coverage to have no usual source of care, no well child visits, and to have unmet needs. Likewise, Cummings et al. (2009) find that children in California with gaps in coverage or without insurance had much less access to needed and preventative care. If instability in health insurance coverage for individual children is negatively related to their access to health care, it is plausible that inconsistencies among children within a single family may also hamper access to health care. Finally, the source or type of health insurance is associated with children's access to quality care. Public health insurance (such as Medicaid or SCHIP) emerges as better on some indicators, such as completed vaccinations (Blewett et al. 2008) and access to mental health services for special needs children (DeRigne, Porterfield, and Metz 2009), whereas private coverage is associated with better outcomes on other indicators, such as lower levels of unmet medical needs and fewer problems with quality of care (Cassedy et al. 2008). These differences in access to quality health care by insurance coverage type suggest that public and private insurance coverage are not providing identical goods. Thus, researchers need to be

attuned to the specific mix of health insurance coverage within families and not just whether the family is fully or partially insured.

Based on the previous research, we identify three unanswered questions that relate to our hypothesis that greater family complexity is related to less access to health care for children. These questions, which we address in this paper, are as follows: 1) How is family complexity related to insurance coverage discordance within families? 2) Is insurance coverage discordance associated with children's access to quality health care (operationalized through measures such as having a usual source of care, receiving preventative care, and having no unmet health needs)? 3) Are specific patterns of family discordance associated with less access to quality health care for children, or are all patterns of family discordance equally associated with health care access?

To investigate these questions, we use data from the National Health Interview Survey from 2006, 2007, and 2008, which is nationally representative when weighted, and limit our sample to families with children under age 19. This yields a sample of 52,020 families which include 159,931 individuals, of whom 61,126 are children. We create a complex typology of family structure which identifies families by the presence of parents in the household, the marital or cohabiting status of the biological parents present, and the children's relationships to each other (full sibling, step-sibling, half-sibling, other relative, or non-relative). We define health insurance discordance among children by whether children have the same or different health insurance coverage. We distinguish between the following types of coverage: no coverage/uninsured, private insurance (separated into privately-paid and employer-sponsored), Medicaid, SCHIP, other government plan (e.g. provided by Indian Health Services, Veterans Administration, or the military). We consider two outcome measures for the full sample of children (whether they had a usual source of care and whether they did not get or were delayed in getting needed medical care) and limit other analyses to the sample child in each household (N=27, 191) for whom there is more information available. For these children, we are able to consider their source of usual care in more detail as well as whether and why it changed in the preceding year, the reasons why needed medical care was delayed or foregone, whether the child had been to a doctor in the past year, whether the child had a well-child checkup, and whether the child had received a flu vaccine in the previous year.

Preliminary analyses of our data indicate that one-quarter (25.2%) of all children under age 19 live in families with child-level discordance in health insurance coverage. Among children living in families with more than one child under age 19, the prevalence is just under 30 percent. Although we are still developing our detailed measure of family structure, estimates using rough categorizations suggest that the percentage of children living in families with discordant child health insurance coverage varies significantly ($p<.05$) according to even these broad categories of family structure. For instance, slightly less than one-quarter (23.0%) of children living with two biological/adoptive parents lived in families with discordant child health insurance coverage, compared with 30.1% of children living in single mother families and 33.3% of children living in families where neither parent is present. These broad categories likely mask considerable variation with each of these groups. Thus, it appears that a sizeable proportion of children

live in families with discordant health insurance coverage, that such discordance varies by family characteristics, and that it is plausible that health care outcomes will vary accordingly.

References:

Amey, C., K. Seccombe, and R.P. Duncan. 1995. “Health Insurance Coverage of Mexican American Families in the U.S.: The Effect of Employment Context and Family Structure in Rural and Urban Settings.” *Journal of Family Issues* 16(4): 488-510.

Blewett, L. A., G. Davidson, M. D. Bramlett, H. Rodin, and M. L. Messonnier. 2008. "The impact of gaps in health insurance coverage on immunization status for young children." *Health Services Research* 43:1619-1636.

Cassedy, A., G. Fairbrother, and P. W. Newacheck. 2008. "The impact of insurance instability on children's access, utilization, and satisfaction with health care." *Ambulatory Pediatrics* 8:321-328.

Cummings, J.R., S.A. Lavarreda, T. Rice, and E.R. Brown. 2009. “The Effects of Varying Periods of Uninsurance on Children’s Access to Health Care.” *Pediatrics* 123: 411-418

DeRigne, L., S. Porterfield, and S. Metz. 2008. “The Influence of Health Insurance on Parents’ Reports of Children’s Unmet Mental Health Needs.” *Maternal and Child Health Journal* 13 (2): 176-186.

Hanson, K. L. 1998. “Is insurance for children enough? The link between parents’ and children’s health care use revisited.” *Inquiry* 35: 294-302.

Hanson, K. L. 2001. “Patterns of insurance coverage within families with children.” *Health Affairs* 20(1): 240-246.

Nielsen, R.B. and S. Garasky. 2008. “Health Insurance Stability and Health Status: Do Family-Level Coverage Patterns Matter?” *Journal of Family Issues* 29(11): 1471-1491.

Strach, P. 2007*All in the Family: The Private Roots of American Public Policy*. Palo Alto: Stanford University Press.

Vistnes, J.P. and B.S. Schone. 2008. “Pathways to Coverage: The Changing Roles of Public and Private Sources.” *Health Affairs* 27(1): 44-57.