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Health insurance coverage within sibships: Prevalence of mixed coverage and associations with health care utilization

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ABSTRACT

An increasing proportion of children in the United States lives in families with complicated family structures and a mix of immigrant and US-born family members. Eligibility rules for health insurance coverage, however, were not designed with these families in mind. The result can be complicated insurance patterns among siblings within families, with some "sibships" only being partially-insured, and other sibships having both private and public coverage. We hypothesize that mixed coverage among siblings causes confusion and logistical difficulties for parents and may lead to less access to appropriate health care for their children. In this article, we use data from the 2009–2011 National Health Interview Survey (n = 51,418 children in 20,478 sibships) to present estimates of the prevalence of mixed health insurance coverage among siblings and describe the predictors of such coverage. We also use linked data from the 2001–2005 National Health Interview Survey and 2002–2007 Medical Expenditure Panel Survey (n = 17,871) to show how mixed coverage is related to health care utilization. We find that although few sibships are characterized by different health insurance coverage types, mixed coverage among siblings is far more common among families with mixed nativity status, and blended families with step- and half-siblings. In terms of outcomes, children living in sibships with mixed coverage have significantly lower odds of having a usual source of health care. We also consider whether the association between mixed insurance coverage and health care outcomes differs across particular combinations of insurance coverage. We find that both publicly-insured children who have uninsured siblings and privately-insured children with publicly-insured siblings are less likely to have a usual source of care than similar children with uniformly-insured siblings. Because a usual source of care is associated with better health care outcomes, we argue that policymakers should consider ways to reduce mixed coverage among children and families.

Introduction

The population of children in the United States is changing, with ever-greater diversity in family structure and larger shares of immigrant children. Yet the American health insurance system has not adjusted to the changing composition and characteristics of families, resulting in coverage gaps caused by a disjuncture between family realities and insurance policy eligibility requirements. A variety of patchwork policies and programs have been instituted to address some of the gaps. Even with such programs, however, the American system of health insurance provision still results in high levels of uninsurance for children—9.8% in 2010 (DeNavas-Walt, Proctor, & Smith, 2011)—and complicated insurance arrangements within families, a topic that has been understudied in the literature.

One example of the complicated insurance arrangements resulting from this combination of changing demography and mismatched eligibility rules is non-uniform health insurance coverage among children in the same family. In this article, we use linked data from the National Health Interview Survey (NHIS) and Medical Expenditure Panel Survey (MEPS) to examine mixed types of health insurance coverage among minor siblings in the same family. Our analysis builds upon a growing body of literature about children's health insurance from a family perspective, moving beyond the previous focus on uninsurance and public insurance to also include private insurance.

Health insurance coverage patterns within families

An impressive body of research has documented individual children's health insurance coverage (e.g. Hudson & Selden, 2007), identified significant predictors of having particular types of coverage (e.g. Lin et al., 2003), and estimated the associations

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between insurance coverage and children's health care utilization (e.g. Blewett, Davidson, Bramlett, Rodin, & Messonnier, 2008; DeVoe, Graham, Krois, Smith, & Fairbrother, 2008; Hoilette, Clark, Gebremariam, & Davis, 2009). This research, however, has largely taken an *individual* perspective, focusing on the insurance coverage of one child per household.

Previous studies of health insurance arrangements *within families* have primarily focused on whether families include both insured and uninsured members (DeVoe, Tillotson, & Wallace, 2009; Hanson, 2001). For example, an analysis of 2002–2006 MEPS data found that 18% of children had a different insurance status (covered versus uncovered) than one or both of their parents (DeVoe et al., 2009). However, few studies look beyond the insured/uninsured dichotomy to examine the complexity of insurance arrangements within families with children. One notable exception is a study by Vistnes and Schone (2008), which examined how the composition of health care coverage within working families changed in the years following the enactment of the State Children's Health Insurance Program (SCHIP). The authors document the growing proportion of families in which some members were covered by public health insurance and others by private insurance (or no insurance at all). Although the authors examined the proportion of families in which children had different insurance patterns from their parents, they did not examine the specific patterns of health insurance coverage *among siblings* in the family, and their analysis excluded children in households without workers. Considering coverage patterns among siblings may be important if non-uniform coverage among children means that parents must expend more time, effort, or money to navigate multiple health care systems on behalf of their children.

How mixed health insurance among siblings may arise

In the United States, children usually obtain health insurance coverage through private employer-based insurance from one of their parents or step-parents (54.8%) or through government programs, such as Medicaid or SCHIP (37.9%). Very few children—5.7%—have health insurance purchased directly by a parent and not through an employer or labor union (DeNavas-Walt et al., 2011). As we describe below, the rules and regulations governing coverage by both private and public health insurance programs are increasingly out-of-step with recent changes in family demography, likely resulting in mixed health insurance coverage among siblings for many families.

Employer-sponsored health insurance eligibility rules are usually based on biological and legal ties, rather than on household composition or financial dependency status. When employers offer family insurance coverage, spouses and minor children are usually the only family members who are eligible for coverage. This means that other children in the household who are not biologically or legally related to the worker (such as step-children in increasingly-common cohabiting relationships) are usually ineligible for coverage under the family plan, regardless of whether the child is economically dependent or socially considered to be a family member. In other cases, some portion of the children in a family may be covered under the health insurance plan of a non-resident biological parent who is not the parent of all of the children in the household, and thus cannot provide insurance for all of the children. Given these eligibility restrictions, mixed health insurance coverage among siblings is likely to be especially common for (increasingly-prevalent) non-traditional families, such as families with half- and step- siblings.

Just as laws and regulations regarding coverage under employer-based private health insurance can result in complex patterns of coverage among siblings, eligibility requirements for *public* health insurance also interact with recent demographic changes to create mixed eligibility for public insurance within sibships. Specifically, state-specific policies regarding age grading and nativity status often result in mixed eligibility for *public health insurance coverage* among siblings (Hudson, 2009).

Eligibility rules for public health insurance vary across U.S. states, with some minimum standards set by the federal government. In general, these programs provide either free or low-cost health insurance coverage to native-born children in poor and low-income families. Federal law requires that states provide Medicaid coverage to all children with family incomes under the federal poverty level (FPL) and to children under age 6 whose family incomes are between 100 and 133% of the FPL. Some states cover older children with similarly low incomes, but states are not required to do so, and 31 states have income eligibility guidelines for Medicaid that vary by the child's age (Kaiser Commission on Medicaid and the Uninsured, 2012). As a result of age-related income eligibility thresholds, families in which some children are age 6 and younger and other children are over age 6 may have some children who qualify for public health insurance programs and others who are ineligible. Indeed, Hudson's (2009) analysis of public insurance eligibility in the 2000–2005 period shows that states with age-related income eligibility criteria had higher percentages of families with mixed public insurance eligibility among siblings than states with a single income eligibility standard. Although age-graded eligibility rules are likely to affect near-poor families the most, families with middle-class incomes residing in states with more inclusive SCHIP eligibility guidelines may also be affected.

Eligibility for public health insurance programs is also tied to nativity status, and this may vary across siblings. Prior to the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA), immigrant children who had lawfully resided in the U.S. for less than five years and undocumented children residing in the U.S. were ineligible for federally-funded Medicaid, although some states covered such children with state funds. Since the passage of CHIPRA, states can get matching federal funds to cover resident children with legal documentation who have not met the five year residency requirement, but many states still do not cover these children (Kaiser Commission on Medicaid and the Uninsured, 2012). Because the United States has birthright citizenship, children born in the United States are automatically citizens, regardless of the immigration status of their parents or siblings. As a result, in many families, US-born children qualify for public health insurance programs while immigrant children do not (Hudson, 2009).

We assume that mixed health insurance coverage among siblings results primarily from the eligibility restrictions outlined above, rather than from parental choice (with the possible exception of parents seeking additional/different coverage for children with a disability or severe health condition). Based on such insurance eligibility rules, we hypothesize that sibships with particular characteristics—especially non-shared parents and mixed nativity status—will be more likely to have mixed coverage.

Potential consequences of mixed health insurance among siblings

Both public health insurance programs and private employer-based health insurance policies have rules about approved providers, covered services, required pre-authorizations for medical treatments, and cost-sharing arrangements that may be confusing to parents. Confusion and frustration may be particularly common when siblings within a family are covered by different plans, each with its own rules and administrative procedures. Any non-uniformity in insurance coverage among family members may cause extra hassle and confusion, but mixed insurance coverage