Families With Mixed Eligibility For Public Coverage: Navigating Medicaid, CHIP, And Uninsurance

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Families With Mixed Eligibility For Public Coverage: Navigating Medicaid, CHIP, And Uninsurance

Medicaid and CHIP policies play a role in the high uninsurance rates that are prevalent among eligible children in families where children are eligible for different programs.

by Julie L. Hudson

ABSTRACT: In the midst of health care reform, eligible but uninsured children remain a cause for concern. Children in the same family often have differing eligibility status for public coverage. Mixed eligibility is associated with higher uninsurance rates, even when all children in a family are eligible. Medicaid policies play an important role in creating mixed-eligibility families via age-related eligibility thresholds and limited benefits for immigrants; states running separate Children’s Health Insurance Program (CHIP) programs have higher uninsurance rates among eligible children. Recent policies to simplify enrollment have not lowered uninsurance among these children. States may improve take-up rates by focusing on eligible children in mixed-eligibility families. [Health Affairs 28, no. 4 (2009): w697–w709 (published online 23 June 2009; 10.1377/hlthaff.28.4.w697)]

In debates leading up to the passage of the Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009, one common interest was the desire to cover poor children who were already eligible for public insurance but remained uninsured. Despite improvements over the past few decades in uninsurance rates for children, 5.5 million children eligible for Medicaid or the Children’s Health Insurance Program (CHIP) remained uninsured in 2005. They accounted for 62 percent of all uninsured children and came from some of the nation's most disadvantaged families.

One complication in the effort to enroll eligible children is the dual structure of public insurance coverage and the potential for mixed eligibility to occur within families. With Medicaid serving the nation's poorest children and CHIP reaching out to children of the working poor, mixed eligibility occurs when two or more

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children in a household have varied eligibility status for public coverage. These families, with either a mixture of Medicaid- and CHIP-eligible children or a mixture of eligible and ineligible children, may face greater challenges in enrolling and maintaining coverage for their children than families where all children have the same eligibility status.

Mixed eligibility occurs via two routes. Before the passage of CHIPRA, states were prohibited from using federal funds to cover legal immigrants who had lived in the United States for less than five years. (Use of federal funds to cover undocumented immigrants continues to be prohibited.) Although some states use non-federal funds to cover these children, most do not. For low-income immigrant families with a mixture of foreign-born (immigrant) and U.S.-born (citizen) children, such policies result in having a mixture of younger (citizen) children who are eligible for public coverage and older (immigrant) children who are not.

But even in the absence of immigration policies, an often-overlooked factor in the complexity of public insurance is the structure of Medicaid income-eligibility thresholds. In most states, these thresholds differ by the age of the child, leading to a “stairstep” profile where, at some income levels, younger children are eligible for Medicaid, while older children in the same family are not. In the late 1990s, CHIP extended coverage to older children in such families; nonetheless, these children continued to have different eligibility status than their younger Medicaid-eligible siblings.

There are a number of reasons why families with mixed-eligible children might have lower levels of insurance coverage than families with only uniform-eligible children. Families with a mixture of eligible and ineligible children face a greater risk of having an uninsured child, simply because ineligible children in low-income families have limited options for coverage. But even in families where all children are eligible, transaction costs to cover all children may be higher. In most states, CHIP is administered partially or fully as a separate program to Medicaid, differing not only in eligibility rules but often in levels of coverage, choice of providers, application processes, renewal requirements, and administrative rules. Some states have begun to address these issues by implementing policies to simplify or streamline enrollment; however, families may still find it difficult to navigate two programs.

Previous studies have found that parents are often misinformed regarding their children's eligibility status—a problem that may be magnified for mixed-eligibility families. They may mistakenly believe that the ineligibility of one child applies to others in the family or believe that a renewal application applied to all children when it only applied to some. Coverage gaps can occur even when parents are fully
informed. Undocumented immigrant families may be reluctant to enroll their eligible children if they fear legal ramifications from sharing personal information with public officials. And children might not have seamless transitions between Medicaid and CHIP when families face administrative delays, waiting periods, or enrollment caps that are out of their control.

Previous research has documented mixed insurance coverage within families and has identified a strong relationship between parental and child coverage. In contrast, little work has been done to investigate insurance coverage across siblings, and no studies address the phenomenon of mixed eligibility. This paper fills a gap in the literature by documenting the size and nature of this issue, showing trends in the number and characteristics of mixed-eligibility families in the Medical Expenditure Panel Survey (MEPS). The relationship between mixed eligibility and uninsurance is explored at both the family and the child levels, and state-level policies for Medicaid and CHIP are analyzed, to understand what role these policies play in the creation of mixed-eligibility families and whether or not they affect children’s likelihood of being eligible but uninsured.

Study Data And Methods

- **Data**. This study used data from MEPS 1996–2005, a nationally representative data set of individuals and families, their health characteristics, health spending, insurance coverage, employment, and other demographic characteristics. The survey has an overlapping panel design and includes weights and sample design variables to control for the complex design of the survey. Unless otherwise noted, all results presented in the text are significant at the 0.05 level or higher.

- **Analytic methods**. Because mixed eligibility requires the presence of multiple children in a family, child- and family-level analyses were performed on (1) families with two or more minor children (age eighteen and younger) and (2) minor children eligible for Medicaid/CHIP with at least one minor sibling. Family-level analyses covered the years 1996–2005, while child-level analyses were for 2000–2005 only. Families were defined using health insurance eligibility units (HIEUs), which group children and their siblings with their biological, adoptive, or stepparents. Pooled MEPS samples contain 29,845 families with more than one child (20,158 for 2000–2005) and 26,104 eligible children with at least one sibling.

Eligibility and insurance indicators were constructed at the individual child level and were then aggregated to the family level. Eligibility for public insurance was simulated for each child using KIDSIM, a microsimulation model that uses comprehensive eligibility rules by state and year, and detailed information from MEPS on family structure, income, assets, and age. Immigration policies were simulated using probabilities for documentation status combined with linked MEPS–National Health Interview Survey (NHIS) variables for citizenship, birth country, and years in the United States. **Uninsurance** at the child level was defined as having no health insurance coverage for physician and hospital care during the
first round of each survey year. At the family level, the insurance measure of interest was whether a family had at least one child who was uninsured.

Families were categorized into several groups based on the eligibility of their children. Families were defined as being “uniform-eligibility” if all children were Medicaid eligible (all-Medicaid) or all children were CHIP eligible (all-CHIP). Mixed eligibility” families were categorized as follows: (1) “Medicaid-CHIP” families had some children eligible for Medicaid and others eligible for CHIP; (2) “Medicaid-ineligible” families had a mixture of children eligible for Medicaid and children who were ineligible (for either Medicaid or CHIP); and (3) “CHIP-ineligible” families had a mixture of CHIP-eligible and -ineligible children.

In the child-level analysis, eligible children were identified by their own eligibility status (Medicaid or CHIP) as well as that of their minor siblings. Eligible children can be identified as having either “all siblings with uniform eligibility” or “any mixed eligibility” among siblings. Children with the latter were further categorized into whether the eligible child had “any ineligible siblings” or “all eligible siblings.”

Both the family- and child-level analyses relied on state Medicaid and CHIP policies to determine what role, if any, such policies played in the creation of mixed-eligibility families and in the prevalence of uninsured children in these families. For Medicaid, states were categorized by the number of age-related income eligibility thresholds in their Medicaid programs. In 2005, states had between one and three eligibility categories. Six states applied a single income eligibility threshold to all children ages 0–18, but most states applied different income thresholds to infants, preschoolers (ages 1–5), and school-age children (ages 6–18). A typical Medicaid program with three categories covered school-age children up to 100 percent of the federal poverty level; preschoolers up to 133 percent of poverty; and infants up to 185 percent of poverty. For CHIP policy, states were defined by whether the state runs CHIP solely as a Medicaid expansion program or whether it runs any part of CHIP as a separate program.

Child-level analyses controlled for state economic conditions and policies intended to simplify or streamline enrollment.

**Study Results**

**Trends in mixed eligibility: 1996–2005.** In 1996, 1.96 million families had mixed-eligible children (Exhibit 1), representing 8.6 percent of all families and 28.2 percent of families with an eligible child (percentage results not shown). Exhibit 1 highlights a significant decrease in the number of mixed-eligibility families over time to just 1.43 million in 2005. Much of this drop occurred between 1999 and 2000, when the number of mixed-eligibility families fell from 2.09 million to 1.49 million.

Mixed-eligibility families can be broadly identified as either having all children eligible for public insurance (Medicaid-CHIP mixed) or having some children who are eligible for public insurance and others who are not (Medicaid-ineligible
mixed and CHIP-eligible mixed). The composition of families with mixed eligibility has changed dramatically over time, switching from primarily Medicaid-eligible families in 1996 (93 percent) to primarily Medicaid-CHIP families by 1999 (62 percent; Exhibit 2).

The pronounced changes in the trends seen in Exhibits 1 and 2 coincide with the implementation of Medicaid and CHIP policies associated with eligibility. The concentrated drop in the number of mixed-eligibility families between 1999 and 2000 in Exhibit 1 coincides with the implementation of the Omnibus Budget Reconciliation Act (OBRA) of 1990. OBRA extended Medicaid coverage to all children in families below 100 percent of poverty who were born after 30 September 1983 and was phased in over time. Before OBRA was fully implemented in 2001, poor families with teens were at risk of having a mixture of young children who were eligible for Medicaid and older children who either were not eligible for public insurance or were eligible for CHIP. The full implementation of OBRA should

EXHIBIT 1
Number Of Mixed-Eligibility Families (Medicaid/CHIP/Ineligible), 1996–2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Number (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>2.0</td>
</tr>
<tr>
<td>1998</td>
<td>1.5</td>
</tr>
<tr>
<td>2000</td>
<td>1.0</td>
</tr>
</tbody>
</table>

NOTE: Mixed-eligibility families have two or more children with differing eligibility for public programs (eligible for Medicaid, eligible for the Children’s Health Insurance Program, or CHIP, or ineligible for either).

EXHIBIT 2
Components Of Mixed Eligibility (Medicaid/CHIP/Ineligible), 1996–2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Medicaid-ineligible</th>
<th>Medicaid/CHIP-eligible</th>
<th>CHIP-ineligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>80</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>1998</td>
<td>70</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>2000</td>
<td>60</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>2002</td>
<td>50</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>40</td>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

NOTES: “Ineligible” indicates the presence of a child who is not eligible for public coverage. Families with Medicaid-eligible, Children’s Health Insurance Program (CHIP)-eligible, and ineligible children (<1 percent of mixed-eligibility families) are placed in the Medicaid-ineligible category. Placement of such families in other categories does not change the results.
have increased the probability that these teens were eligible for Medicaid along
with their younger siblings and decreased the probability of mixed-eligibility families overall. MEPS data support this hypothesis; between 1996 and 2005, the percentage of mixed-eligibility families fell from 8.6 percent to 6.1 percent, while the percentage of Medicaid-only families increased from 21.1 percent to 27.0 percent (data not shown).

Trends in Exhibit 2 show that the implementation of SCHIP between 1998 and 2000 had a dramatic impact on the composition of mixed-eligibility families. Before SCHIP, 95 percent of such families had an ineligible child, compared to only 30 percent in 2000. This drop of sixty-five percentage points highlights SCHIP’s success at filling eligibility gaps created by Medicaid age-related thresholds and at improving coverage options for children in poor families. Nonetheless, in 2005, 38 percent of mixed-eligibility families still had an ineligible child, most often as a result of policies that limit benefits to immigrants.

The remainder of the analyses presented here focused on the post-OBRA period, when the number, percentage, and composition of mixed-eligibility families were stable.

- Characteristics of mixed-eligibility families, 2000–2005. Exhibit 3 presents characteristics of mixed-eligibility families in 2000–2005, highlighting differences between Medicaid-SCHIP families, eligible-ineligible families, and families with uniform eligibility (all Medicaid, all SCHIP). Many of the differences between mixed- and uniform-eligibility families are driven by the very policy components that created the phenomenon of mixed eligibility in the first place. Medicaid-SCHIP families had the highest concentration of incomes in the 100–199 percent of poverty range, where age-related Medicaid income thresholds are most common. Mixed-eligibility families, regardless of type, had more children (not shown) and were more likely than uniform-eligibility families to have an infant. Eligible-ineligible families were the most likely to be Hispanic, to have a noncitizen parent, or to have a nonbiological/nonstep child. These families are the most likely to be affected by laws that limit eligibility for immigrants or apply special rules to children living with nonparent guardians.

The most striking differences found in Exhibit 3 are those related to insurance coverage outcomes. Unlike the age, citizenship, and income characteristics that affect the probability of being categorized as a mixed-eligibility family, the insurance coverage outcomes are more likely to result from the family’s mixed eligibility status. This is most apparent for families with an eligible-ineligible mix because low-income ineligible children have limited options for insurance coverage. It is not surprising, therefore, to find that 43 percent of eligible-ineligible families had an uninsured child during 2000–05, compared to only 21 percent of all-Medicaid families and 16 percent of all-CHIP families (Exhibit 3). Mixed coverage in eligible-ineligible mixed families was also high: 27 percent of eligible-ineligible families had a mixture of insured and uninsured children in the household; rates in
uniform-eligibility families were only 7 percent and 4 percent, respectively. Even more striking is the increased likelihood of uninsurance for mixed families in which all children are eligible for public coverage (Medicaid-CHIP mix). This is especially surprising given CHIP’s legislative intent to fill uninsurance gaps by extending eligibility and coverage to children in low-income working families. As seen in Exhibit 3, the probability that a Medicaid-CHIP family had an uninsured child was 26 percent—significantly higher than the rates for both all-Medicaid (21 percent) and all-CHIP (16 percent) families. Medicaid-CHIP families also have increased probability of having a mixture of insured and uninsured children. At 12 percent, rates of mixed coverage were two to three times those found for uniform-eligibility families (7 percent and 4 percent). The fact that these families continue to have lower rates of insurance despite their full eligibility status is troubling; it suggests that they may be unaware of their children’s eligibility or may face hurdles in either enrolling in or maintaining coverage.

EXHIBIT 3
Characteristics Of Mixed-Eligibility And Uniform-Eligibility Families (Medicaid/CHIP/Ineligible), 2000–2005

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Uniform-elicibility families, mean (SE)</th>
<th>Mixed-elicibility families, mean (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Medicaid-eligible</td>
<td>All CHIP-eligible</td>
</tr>
<tr>
<td>Children in family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any infants</td>
<td>0.16 (0.01)</td>
<td>0.04 (0.01)</td>
</tr>
<tr>
<td>Any children ages 1–5</td>
<td>0.56 (0.01)</td>
<td>0.38 (0.01)</td>
</tr>
<tr>
<td>Any children ages 6–11</td>
<td>0.61 (0.01)</td>
<td>0.67 (0.01)</td>
</tr>
<tr>
<td>Any children ages 12–18</td>
<td>0.48 (0.01)</td>
<td>0.59 (0.01)</td>
</tr>
<tr>
<td>Family income (percent of poverty)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;100</td>
<td>0.58 (0.01)</td>
<td>0.01 (0.02)</td>
</tr>
<tr>
<td>100–199</td>
<td>0.31 (0.01)</td>
<td>0.53 (0.02)</td>
</tr>
<tr>
<td>200–299</td>
<td>0.08 (0.01)</td>
<td>0.37 (0.01)</td>
</tr>
<tr>
<td>Ethnicity, immigration status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanicb</td>
<td>0.28 (0.01)</td>
<td>0.24 (0.01)</td>
</tr>
<tr>
<td>Noncitizen parent</td>
<td>0.18 (0.01)</td>
<td>0.18 (0.01)</td>
</tr>
<tr>
<td>Family structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child without a parent in HIEUc</td>
<td>0.08 (0.01)</td>
<td>0.001 (0.001)</td>
</tr>
<tr>
<td>Insurance coveraged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any uninsured child in HIEU</td>
<td>0.21 (0.01)</td>
<td>0.16 (0.01)</td>
</tr>
<tr>
<td>Insured and uninsured children in HIEUe</td>
<td>0.07 (0.005)</td>
<td>0.04 (0.004)</td>
</tr>
</tbody>
</table>

SOURCE: Data on families with two or more children in pooled Medical Expenditure Panel Survey (MEPS)/KIDSIM, 2000–2005.

a These families have at least one eligible child and at least one ineligible child. Families with Medicaid-eligible, Children’s Health Insurance Program (CHIP)-eligible, and ineligible children are included here.

b Defined as a family where at least one parent/guardian is Hispanic.

c Families where a child is placed in the health insurance eligibility unit (HIEU) of an adult relative (grandparent, aunt/uncle) or adult guardian.

d Uninsurance is measured as being uninsured for the entire round.

e Families with a mixture of some insured and some uninsured children.
Role of Medicaid/CHIP policies. State policies can play a major role in creating or overcoming such coverage hurdles. Families in states with partially or fully separate CHIP programs may have more difficulty navigating two programs than those in states with pure Medicaid-expansion CHIP, where transitions between Medicaid and CHIP coverage are essentially seamless. The number of age categories in a state’s Medicaid income eligibility threshold profile may also be important: having multiple categories can inhibit a parent’s ability to understand or follow the procedures necessary to cover all children in the family.

MEPS estimates identify a direct relationship between the number of age-related income eligibility thresholds in a state’s Medicaid program and the percentage of mixed-eligibility families in the state. In the post-OBRA period, 7.4 percent of families had mixed-eligible children in states with three age-related eligibility categories, compared to only 5.6 percent in states with two such categories. States with a single income eligibility threshold, applicable to all children ages 0–18, had the lowest percentage of mixed-eligibility families: just 2.1 percent (not shown).

MEPS estimates also identify a relationship between state Medicaid/CHIP policies and the probability that a mixed-eligibility family has an uninsured child. Exhibit 4 focuses solely on families with a Medicaid-CHIP mix where all children are eligible for public coverage and, therefore, have access to health insurance. The percentage of families with an uninsured child are shown across two state policy

<table>
<thead>
<tr>
<th>State Medicaid structure^</th>
<th>State CHIP structure, mean (SE)(^{a})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any separate CHIP</td>
</tr>
<tr>
<td>All states</td>
<td>27.6 (2.0)(^{c})</td>
</tr>
<tr>
<td>States with three age-related income eligibility thresholds</td>
<td>29.6 (2.0)(^{c,d})</td>
</tr>
<tr>
<td>States with two age-related income eligibility threshold</td>
<td>21.4 (4.1)</td>
</tr>
</tbody>
</table>


NOTES: SE is standard error. Medicaid-CHIP mixed families are those families with a mixture of both Medicaid-eligible and CHIP-eligible children. Families with ineligible children are not included in these analyses (even if they also have Medicaid- and CHIP-eligible children).

\(^{a}\)States with combination Medicaid-CHIP programs (a mixture of Medicaid expansion and separate CHIP) are included in the “any separate CHIP” category.

\(^{b}\)States applying a single income eligibility threshold to all children ages 0–18 are not included in this exhibit because these states do not generate Medicaid-CHIP mixed families.

\(^{c}\)Significantly different from percentage with an uninsured child in Medicaid-expansion states (same row); \(p < 0.05\).

\(^{d}\)Significantly different from percentage with an uninsured child in states with two thresholds (same column); \(p < 0.05\).
variables: (1) the structure of the state’s CHIP program (Medicaid expansion only versus any separate CHIP); and (2) the number of age-related income eligibility thresholds in the state’s Medicaid program (two or three).¹⁸

Both policies appear to play a role in the high uninsurance rates that are prevalent among Medicaid-CHIP families. Among such families, 27.6 percent of those living in separate CHIP states in 2000–05 had an uninsured child, compared to only 16.3 percent in Medicaid-expansion states (Exhibit 4). Furthermore, families living in separate CHIP states are more likely to have an uninsured child when the Medicaid program has more age-related categories. Among families living in separate CHIP states in 2000–05, 29.6 percent had an uninsured child when the state’s Medicaid program had three age-related income eligibility categories, compared to only 21.4 percent in states with two such categories (Exhibit 4). This suggests that both the presence of two public insurance programs and the number of age-related transitions a family must face may be deterrents to coverage.

### Mixed eligibility and uninsurance for eligible children, 2000–05

The results thus far provide a compelling case for the relationship between Medicaid/CHIP policy, mixed eligibility, and increased levels of uninsurance. However, purely descriptive techniques do not control for individual-, family-, and state-level characteristics that could affect both mixed eligibility and uninsurance. Of primary concern here is whether states with separate CHIP programs were different from Medicaid-expansion states in other ways that might affect insurance coverage for mixed-eligibility families.¹⁹

To control for these factors and factors at the individual/family level, ordinary least squares (OLS) regressions were run on the sample of eligible children in the MEPS data between 2000 and 2005. The regressions measured the probability that an eligible child is uninsured. The key variables of interest were whether children with mixed-eligibility siblings were more likely to be uninsured than those with only uniform-eligibility siblings (omitted category). The model was run for all states and separately based on states’ CHIP structure (Medicaid expansion and separate CHIP).

Results in Exhibit 5 bolster the descriptive findings above.²⁰ Eligible children are more likely to be uninsured when they have a sibling who is either eligible for a different program or ineligible for any—a result that is fully driven by those living in separate CHIP states (column 3). In these states, eligible children are more likely to be uninsured (by five percentage points) when they have a sibling who is eligible for a different program. Eligible children in separate CHIP states are also more likely to be uninsured (by six percentage points) when they have an ineligible sibling, although at a lower level of significance (p < 0.10).

Further analysis (not shown) revealed that the mixed-eligibility findings in Exhibit 5 are remarkably robust.²¹ These findings remained unchanged even after state-level variables measuring policies, economic conditions, and cultural norms were controlled for. Although some specifications showed that state unemploy-
ment rate, joint Medicaid-CHIP applications, and twelve-month redetermination of eligibility may have played a role in whether all children were uninsured, others found that these (and other) state policies had no impact on the uninsurance rates of eligible children. More central to the current analyses, there was no evidence that such policies helped alleviate higher uninsurance rates identified here among eligible children in mixed-eligibility families.

Discussion And Policy Implications

This paper is the first to document the phenomenon of mixed eligibility. Results show that mixed eligibility is prevalent and is associated with higher levels of uninsurance among children. In 2005, 1.43 million families had two or more children with differing eligibility for public insurance, representing 12.6 percent of families with eligible children. Mixed-eligibility families were significantly more likely than uniform-eligibility families to have an uninsured child, even when all children in the family were eligible. Because children in these families represent more than 15 percent of all eligible uninsured children in 2005 (data not shown), these results suggest that reaching out to mixed-eligibility families may prove fruitful in states' efforts to enroll eligible but uninsured children.

Medicaid policy plays a key role in the creation of mixed-eligibility families, accounting for more than 60 percent of all such families in 2005. The number of mixed-eligibility families in a state is shown to be directly related to the number of age-related income eligibility categories in a state's Medicaid program. This is

EXHIBIT 5
Probability An Eligible Child Is Uninsured, By State-Level CHIP Policy (Ordinary Least Squares Regression Results), 2000–2005

<table>
<thead>
<tr>
<th>Selected regression variables</th>
<th>All states, coefficient (SE)</th>
<th>Medicaid-expansion CHIP only, coefficient (SE)</th>
<th>Any separate CHIP, coefficient (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed eligibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed eligibility, sibling is eligible</td>
<td>0.05 (0.02)***</td>
<td>0.03 (0.04)</td>
<td>0.05 (0.02)***</td>
</tr>
<tr>
<td>Mixed eligibility, sibling is ineligible</td>
<td>0.04 (0.03)</td>
<td>-0.01 (0.05)</td>
<td>0.06 (0.03)*</td>
</tr>
</tbody>
</table>

NOTES: Full regression results and discussion are available in an Appendix, online at http://content.healthaffairs.org/cgi/content/full/hlthaff.28.4.w697/DC2. Sample consists of children ages 0–18 who were eligible for public coverage (Medicaid, Children’s Health Insurance Program, or CHIP, or a state-funded Medicaid/CHIP-like program) and who had at least one sibling ages 0–18. Uninsured children are those who were uninsured for the entire round (or first three to four months of the calendar year). SE is standard error.

*Full list of regression variables: Child level: age, sex, race, citizenship, child health, region, year. Family level: number of siblings, family structure, parent with employer coverage offer, number of workers, income (as percentage of the federal poverty level). State level: unemployment rate, presumptive eligibility, joint applications, joint renewal, waiting period, twelve-month continuous coverage, twelve-month redetermination, family application, employer coverage rate for employed population, and percentage of firms offering employer coverage.

States with combination Medicaid-CHIP programs are in the “any separate CHIP” specification.

Omitted category is eligible child with only uniform-eligible siblings.

*p < 0.10  ***p < 0.01
“Reaching out to mixed-eligibility families may prove fruitful in states’ efforts to enroll eligible but uninsured children.”

first seen through the implementation of OBRA: its full implementation was essentially equivalent to removing one age-related category from states’ Medicaid profiles and was associated with a 27 percent drop in the number of mixed-eligibility families nationwide.

In the post-OBRA era, the fewer age-related categories in a state’s Medicaid income eligibility profile, the less likely mixed eligibility was to occur. Between 2000 and 2005, states with a single income threshold applied to all children ages 0–18 were the least likely to have mixed-eligibility families: 2.1 percent of families in these states had mixed-eligible children. As of 2005, only six states had adopted a single Medicaid income eligibility threshold.22 Of the remaining forty-five states, twenty had two age-related income eligibility categories, and twenty-five had three such categories; all had a larger share of mixed-eligibility families compared to states with a single income eligibility threshold.

The remaining 38 percent of mixed-eligibility families are created by Medicaid and CHIP policies that apply differing rules to children in the same family based on their immigration status or the lack of a parent in the household. Immigration plays the largest role here: the majority of eligible-ineligible mixed families have a Hispanic or noncitizen parent. State laws and attitudes regarding eligibility for immigrants play a large part in the exposure these families face in having ineligible and uninsured children. These analyses, however, highlight that even eligible children in such families are likely to remain uninsured. States wishing to address this issue now have more flexibility to do so, as CHIPRA extends states the ability to cover recent documented immigrants using federal funds.

CHIP policy also plays a role in mixed eligibility. The implementation of CHIP in the late 1990s changed the composition of mixed-eligibility families from primarily Medicaid-ineligible mixed families (93 percent) to mostly Medicaid-CHIP mixed families (62 percent). CHIP extended coverage to millions of children and resulted in a decrease of almost ten percentage points in the number of mixed-eligibility families with an uninsured child (data not shown).

Results also show, however, that despite CHIP’s capacity to extend coverage to children in working families, not all children took full advantage of it. Uninsurance rates for children in mixed-eligibility families and for eligible children with mixed-eligibility siblings were significantly higher in states running CHIP as a separate program, even when all children in the family were eligible for coverage.

Many states have recognized the complications families face when navigating separate Medicaid and CHIP programs and have implemented policies to simplify and streamline enrollment and retention; CHIPRA encourages more to do so.
Some specifications here suggest that these policies might have helped lower uninsurance rates among all eligible children, but others find no impact from state policies at all. And for mixed-eligibility families, there was no evidence that such policies helped alleviate higher uninsurance rates faced by eligible children with mixed-eligibility siblings. This is a sobering fact, considering that mixed-eligibility families are a clear target for such policies.

**Study limitations.** As in any analysis, there are limitations to this work. The key variables of eligibility and documentation status were simulated and are associated with uncertainty—an issue for all eligibility work using survey data. Although child-level estimates from KIDSIM are widely published and benchmark well, family-level estimates are new to the literature, have no benchmarks, and may be associated with additional uncertainty. Nonetheless, although causality in public policy is difficult to prove, these results provide strong evidence that mixed eligibility in families is associated with higher levels of uninsurance in states running separate CHIP programs, especially those with more age-related income eligibility categories in their Medicaid program.

**Policy implications.** In light of CHIPRA initiatives to improve take-up among eligible children and health reform efforts to increase overall coverage, these results suggest that states may benefit by focusing efforts on the mixed-eligibility population. Improvements may result by either reducing the prevalence of mixed eligibility (reducing or removing age-related income categories in Medicaid profiles, covering recent immigrants) or fine-tuning outreach to target mixed-eligibility families, especially in states running separate CHIP. In 2005 more than 30 percent of mixed-eligibility families had an uninsured child, and more than 20 percent of eligible children with mixed-eligibility siblings remained uninsured. With an average of two uninsured children in each mixed-eligibility family, such families provide a ready target for states’ efforts to improve take-up rates among the eligible but uninsured population.

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**NOTES**


9. Children without parents (<1 percent) are placed in the health insurance eligibility unit of an adult relative.

10. For further details on KIDSIM, immigration measures, and corresponding benchmarks, see Hudson and Selden, “Children's Eligibility”; and the Appendix, online at http://content.healthaffairs.org/cgi/content/ full/hlthaff.28.4.w697/DC2.

11. “All ineligible” families are not relevant here.

12. Families with Medicaid-eligible, CHIP eligible, and ineligible children (<1 percent of mixed-eligibility families) are in the Medicaid ineligible group. Alternative placement does not affect results.

13. For examples, see the Appendix, online as in Note 10.

14. This includes states running combination programs.

15. In the 1996 MEPS, there were 22.8 million families with two or more children and 6.9 million families with an eligible child.

16. See Appendix Exhibit A-1 for similar trends in the percentage of mixed-eligibility families, online as in Note 10.


18. States with a single income eligibility threshold for Medicaid are not included here because such states do not have Medicaid CHIP mixed families.

19. If states with high levels of uninsurance and more age-related income threshold categories for Medicaid were more likely than other states to implement separate SCHIP programs, then any relationship found between state policy and uninsurance rates among mixed-eligibility families may be the result of spurious correlation.

20. Logit models produced identical results. For a full set of results and further discussion, see the Appendix, online as in Note 10.

21. See the Appendix, online as in Note 10.