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Uninsured but Eligible Children:

Are Their Parents Insured? Recent Findings From Oregon

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Abstract

Background—Despite expansions in public health insurance programs, millions of US children lack coverage. Nearly two-thirds of Oregon’s uninsured children seem to be eligible for public insurance.

Objectives—We sought to identify uninsured but eligible children and to examine how parental coverage affects children’s insurance status.

Methods—We collected primary data from families enrolled in Oregon’s food stamp program, which has similar eligibility requirements to public health insurance in Oregon. In this cross-sectional, multivariable analysis, results from 2861 surveys were weighted back to a population of 84,087 with nonresponse adjustment. Key predictor variables were parental insurance status and type of insurance; the outcome variable was children’s insurance status.

Results—Nearly 11% of children, presumed eligible for public insurance, were uninsured. Uninsurance among children was associated with being Hispanic, having an employed parent, and higher household earnings (133–185% of the federal poverty level). Children with an uninsured parent were more likely to be uninsured, compared with those who had insured parents (adjusted odds ratio 14.21, 95% confidence interval 9.23–20.34). More surprisingly, there was a higher rate of uninsured children among privately-insured parents, compared with parents covered by public insurance (adjusted odds ratio 4.39, 95% confidence interval 2.00–9.66).

Conclusions—Low-income Oregon parents at the higher end of the public insurance income threshold and those with private insurance were having the most difficulty keeping their children insured. These findings suggest that when parents succeed in pulling themselves out of poverty and gaining employment with private health insurance coverage, children may be getting left behind.

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Keywords

insurance coverage; healthcare access; primary healthcare; Medicaid; children's healthcare

Despite expansions in Medicaid and the State Children's Health Insurance Program (SCHIP), over 9 million children in the United States have no health insurance coverage.^{1,2} In Oregon, the percentage of uninsured children increased from 10.1% in 2002 to 12.3% in 2004 (over 110,000 uninsured children).³ And, nearly two-thirds of Oregon's uninsured children seem to be eligible for public coverage.³

National efforts have been focused on finding ways to get eligible children covered.⁴⁻⁸ Children who qualify for public insurance gain more stable coverage when enrollment regulations are relaxed and when insurance coverage is extended to parents.⁹⁻¹⁷ Yet, recent state cost containment policies have resulted in the loss of public insurance for many parents. In February 2003, many Oregon parents lost coverage when the Medicaid program tightened eligibility requirements and introduced copayments for adults.¹⁸⁻²⁰ Low-income adults have also been priced out of employer-sponsored insurance coverage.^{21,22} Although some evidence suggests that children are only minimally affected by these trends,²¹ little is known about the stability of health insurance coverage for children whose parents are no longer eligible for public programs and attempting to find affordable private coverage.

At a time when states are restructuring public health insurance programs, this study was conducted to learn more about why eligible children remain uninsured, with a specific focus on the interactions between parental and children's insurance coverage. Our main objectives were to identify the characteristics of uninsured but eligible children and to examine how parental insurance status affects children's insurance coverage.

METHODS

Study Population—Sample of Parents

The study included Oregon's food stamp population at the end of January 2005. To be eligible for food stamps and public health insurance in Oregon, a child must live in a household with an income less than 185% of the federal poverty level (FPL) and be a US citizen. Therefore, if a child was enrolled in food stamps, we assumed that he or she was likely eligible for public health insurance through the Oregon Health Plan (OHP). Our preliminary review of the state administrative data revealed that nearly one-quarter of food stamp families did not have their children enrolled in OHP, so the food stamp program was thought to be a good way to find uninsured but eligible children. (In Oregon, pregnant adults living below 185% FPL can also qualify for OHP. Nonpregnant adults can enroll only if receiving Temporary Assistance to Needy Families [TANF] and below 46% FPL.)

After excluding families with only children less than 1 year of age due to different public insurance eligibility requirements, we selected a representative sample of 10,175 households. The stratified, random sample was divided evenly between families with at least 1 publicly-insured child and those with no children enrolled in OHP during the previous 2 months. (Beyond 2 months was thought to be outside the maximum window of 45 days for a

usual renewal application and was considered a significant insurance gap). Over-sampling techniques, aided by PASS software for adequate power calculations and the survey selection procedure in SAS 9.1, were used to augment the sample in rural areas. A focal child was then randomly selected from each household. A final sample of 8636 households was eligible to participate (families who had moved out of state and those with no current address were excluded). Completed surveys were received from 2681 households, for a response rate of approximately 31% (Fig. 1). This response rate is consistent with rates for other similar surveys of Medicaid-eligible populations.^{18,23}

Survey respondents had similar characteristics to the sample population with differences noted based on enrollment in public insurance programs, race/ethnicity, and region of residence (Appendix A, available on the Medical Care website, www.lww-medicalcare.com). We had a full record of demographic information from all respondents and nonrespondents allowing us to weight responses depending on the probability of original selection and to adjust for different response rates among demographic subgroups. Nonresponse adjustments used a raking ratio estimation process (Appendix B, available on the Medical Care website, www.lww-medicalcare.com).^{24,25} All reported results have been weighted back to the overall food stamp population of 84,087 unless otherwise noted.

Data Collection—Survey of Parents

We designed a survey instrument (available on the Medical Care website, www.lww-medicalcare.com) to ask low-income Oregon parents about their child's access to healthcare during the prior 12 months. Many of the questions were adapted from widely accepted national data collection tools.^{26–29} For validity, cognitive interviews were conducted with low-income parents. Surveys were translated into Spanish and Russian and then independently back translated to ensure fidelity of translation. The instrument was a self-report, mail return survey written at a fifth grade reading level. It contained 63 short questions with multiple response options (no writing required). Participants had a chance to win grocery store gift cards. A four-wave survey methodology was used (2 surveys and 2 reminder postcards). Due to budgetary constraints, telephone follow-up was not possible. The study was approved by the Oregon Health and Science University Institutional Review Board (OHSU eIRB# 1717).

Primary Measures

The main outcome measured was whether or not the child was currently insured with no differentiation made between public or private coverage. This outcome variable was based on self-report only and was constructed from 3 survey questions pertaining to the child's health insurance status. We wanted to achieve an accurate count of the uninsured, so a child was determined to be uninsured only if parental responses to all relevant questions were consistent.

The primary predictor variables were the insurance status and insurance type for the parent completing the survey. In most cases (84.8%), it was the child's mother. This variable was based on a survey question asking the parent to select one or more types of insurance from

several public and private options. It also included a distinct option to indicate no current insurance.

Analysis

Statistical tests were performed using SPSS 14.0 with the complex samples module to account for the complex sampling design. We identified significant demographic characteristics of the uninsured children with χ^2 bivariate analysis and individual logistic regression models. To assess the net effect of the first predictor variable (parent's insurance status) on children's insurance status, we used a series of multivariable logistic regression models. Covariates included: race/ethnicity, age, household income, and parental employment. (A combined race/ethnicity variable was created to overcome the problems with small sample size in several race categories.) Significant interactions ($P<0.15$) were noted between parental insurance status and 3 of the 4 covariates (child's age, parent's employment, and household income), so the data were then stratified by parental insurance status to identify demographic differences between children with uninsured and insured parents. An additional set of logistic regression models was created focusing on insured parents to determine how parental type of insurance might be associated with children's insurance status.

RESULTS

Demographics and Children's Insurance Status

Nearly 11% of children in this population were uninsured, 73% had public coverage, and 16% reported private insurance. Approximately, 42% of the parents reported being currently employed, and over 34% were uninsured. A majority of households were headed by a single parent and had monthly earnings below 100% of the FPL (table not shown). As shown in Table 1, over 80% of uninsured children had uninsured parents, compared with a rate of only 25.5% for insured children. Among families with insured parents, 57.0% of the uninsured children had parents with private insurance, compared with 21.5% of the insured children. Demographic differences between uninsured and insured children were also noted by age, race/ethnicity, parental employment, and household income (Table 1).

Uninsured but Eligible Children and Parental Insurance Status

After adjusting for age, race/ethnicity, parental employment, and household income, a child with an uninsured parent was more likely to be uninsured, compared with a child of an insured parent (adjusted odds ratio, 14.21; 95% confidence interval, 9.23–20.34; Table 2).

When stratified by the current insurance status of the parent responding to the survey, age was the only significant predictor of children's uninsurance among the group with uninsured parents (not shown). In the initial logistic regression models among the children with insured parents, an employed parent and a higher household income were significant predictors of children's uninsurance, suggesting that parental type of insurance might play a role (Table 3, columns 1 and 2). When parental insurance type was included in a second set of models, children with a parent who was privately insured had significantly higher odds of being

uninsured, compared with the children of publicly-insured parents (adjusted odds ratio, 4.39; 95% confidence interval, 2.00–9.66; Table 3, column 3).

DISCUSSION

Stable, continuous health insurance is essential to the health and well-being of all children in the United States.^{30,31} Yet, when parents are not enrolled in publicly-funded insurance programs, children are less likely to be enrolled.^{12–17} Similar to previous national findings, children in Oregon’s food stamp population with uninsured parents were much more likely to be uninsured.

This study goes beyond previous reports linking uninsured children with uninsured parents to highlight a concerning association between privately-covered parents and uninsured kids. This finding is in contrast to previous reports that employees with single coverage, who decline employer-sponsored family coverage, enroll their children in public programs.²¹ It is likely that privately-covered parents with uninsured children cannot afford the premiums for family coverage.^{22,32,33} Or perhaps, employers are not offering coverage to children who qualify for public coverage. For whatever reason, some of these “crowded-out” children are going uncovered.⁵

Some low-income parents who gain employment with private coverage are struggling to keep their children insured. Confusion around differing eligibility requirements, particularly with Medicaid programs that include both adults and children under the same programmatic umbrella, may lead parents to believe their children are not eligible once adults are no longer covered. Strategies to keep children insured must remain a priority. In many cases, parents *do not* qualify for public insurance, but children *do* qualify.

Study Considerations

Interpreting data presented here requires consideration of several important factors. First, families already connected to at least 1 public benefit (food stamps) likely have higher rates of enrollment and retention in public health insurance compared with a more general population. Because the data from this study can only be generalized to Oregon’s food stamp population, these results may be understating the problem in the general population. The significant associations between health insurance for parents and children may be of larger magnitude in eligible families not accessing public services. Also, the true estimate of uninsured children with privately-covered parents could be much higher among low-income families not eligible for public services—those with incomes that fall just above the eligibility threshold. These families may have private insurance for employed adult(s) but not for their children, and these children cannot access public coverage. Although state-specific data are highly relevant at a time when most health policy reform efforts are happening at the state level, further study of nationally representative populations is also needed.

Second, for budgetary reasons, the survey was only administered in English, Spanish, and Russian; and telephone follow-up was not possible. Although our response rate is comparable to the response rates of other similar studies of Medicaid-eligible populations,

response bias is a concern. Respondents were demographically similar to nonrespondents, and the raking ratio estimation nonresponse adjustments were done to further address this potential bias. Although the information about parental insurance coverage is limited to only the parent who completed the survey, the majority of households were headed by a single parent. It is unlikely that the insurance status of a second adult in the minority of families would have changed the results significantly.

Finally, to minimize recall bias from self-report, respondents were asked to recall events and occurrences only in the past 12 months, and several questions pertained to similar topics. Only cases with consistent responses were included in the constructed variables for parental and children's insurance status.

CONCLUSIONS

Policy-makers looking for ways to expand children's health insurance coverage should pay close attention to the ways in which parental health insurance influences children's coverage. As parents lose public insurance and seek private coverage, children may be getting left behind.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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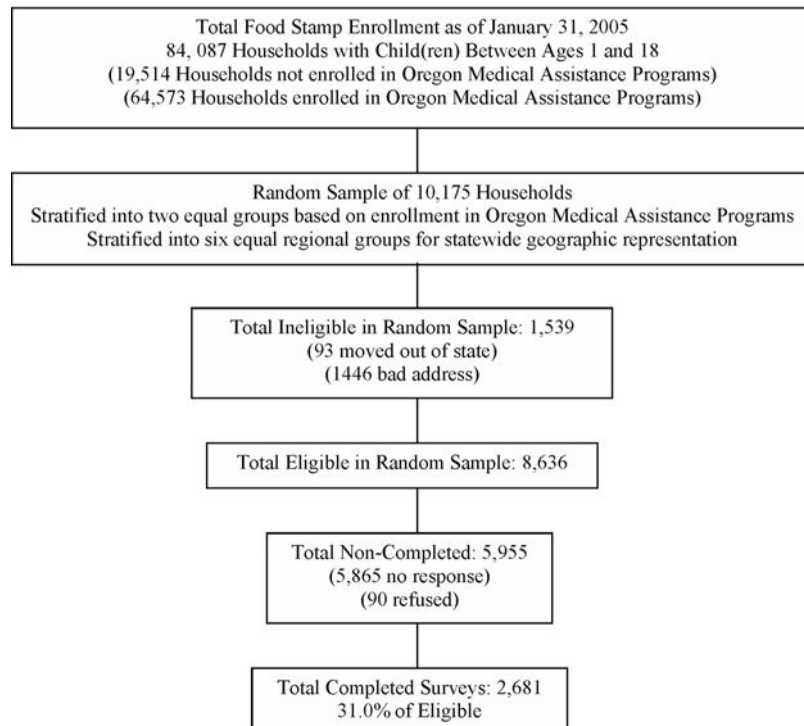


FIGURE 1.
Flow diagram of potential study participants.

TABLE 1

Demographics Among Uninsured and Insured Children

	Demographics of Uninsured Children [*] (Weighted %)	Demographics of Insured Children [*] (Weighted %)
Main predictor variables:		
Parent's insurance status [†] (unweighted N = 2534)		
Parent currently insured	19.2	74.5
Parent currently uninsured	80.8	25.5
Insured parents—parent's insurance type [†] (unweighted N = 1544)		
Parent has private insurance	57.0	21.5
Parent has public insurance	43.0	78.5
Demographic covariates:		
Child's age (yr) [†] (unweighted N = 2649)		
1–4	17.7	30.4
5–9	32.3	29.5
10–14	30.0	25.2
15–18	20.1	14.8
Child's race/ethnicity [†] (unweighted N = 2649)		
White, NonHispanic	61.6	70.5
Hispanic, any race	30.2	18.2
NonWhite, NonHispanic	8.1	11.3
Parent's employment status [†] (unweighted N = 2590)		
Employed or self-employed	47.8	58.6
Not currently employed	52.2	41.4
Household monthly income [‡] (unweighted N = 2591)		
Zero income	9.9	13.8
1%–50% FPL	35.4	36.6
51%–100% FPL	28.3	30.2
101%–133% FPL	15.0	13.5
>133% FPL	11.4	6.0

The population number (N) represents unweighted cases for which all variables considered were known.

Column percentages = 100% (approximate due to rounding).

^{*} Among all children, 10.9% were uninsured, 89.1% were insured.

[†] $P < 0.01$ (in the χ^2 analysis comparing uninsured vs. insured children in all demographic categories).

[‡] $P < 0.05$ (in the χ^2 analysis comparing uninsured vs. insured children in all demographic categories).

FPL indicates federal poverty level.

TABLE 2

Odds of Child Being Currently Uninsured Among All Families

	Unadjusted Odds Ratios, Odds of Child Being Currently Uninsured, Odds Ratio (95% Confidence Interval) Weighted	Adjusted Odds Ratios, Odds of Child Being Currently Uninsured (N = 2466), Odds Ratio (95% Confidence Interval) Weighted
Main predictor variable:		
Parent's insurance status (N = 2534)		
Parent currently insured	1.00	1.00
Parent currently uninsured	12.28 (8.73, 17.28)	14.21 (9.23, 20.34)
Demographic covariates:		
Child's age (yr) (N = 2649)		
1–4	1.00	1.00
5–9	1.89 (1.26, 2.83)	2.42 (1.49, 3.91)
10–14	2.05 (1.34, 3.15)	2.56 (1.53, 4.28)
15–18	2.34 (1.50, 3.64)	3.86 (2.24, 6.67)
Child's race/ethnicity (N = 2649)		
White, not Hispanic	1.00	1.00
Hispanic, any race	1.90 (1.40, 2.58)	1.54 (1.04, 2.29)
NonWhite, NonHispanic	0.82 (0.047, 1.43)	1.00 (0.50, 1.99)
Parent's employment status (N = 2590)		
Not currently employed	1.00	1.00
Employed or self-employed	1.55 (1.15, 2.08)	1.23 (0.86, 1.76)
Household monthly income (N = 2591)		
Zero income	0.77 (0.45, 1.33)	1.11 (0.58, 2.12)
1%–50% FPL	1.03 (0.71, 1.51)	1.19 (0.77, 1.83)
51%–100% FPL	1.00	1.00
101%–133% FPL	1.19 (0.75, 1.87)	1.19 (0.71, 1.99)
>133% FPL	2.03 (1.21, 3.40)	2.31 (1.24, 4.30)

The population number (N) represents unweighted cases for which all variables considered were known; odds ratios represent weighted data analyses. Values in bold indicate significant odds ratios.

TABLE 3

Odds of Child Being Currently Uninsured Among Parents With Health Insurance

	Column 1: Parent Insured Unadjusted Odds Ratios, Odds of Child Being Currently Uninsured, Odds Ratio (95% Confidence Interval) Weighted	Column 2: Parent Insured Adjusted Odds Ratios, Odds of Child Being Currently Uninsured (N = 1590), Odds Ratio (95% Confidence Interval) Weighted	Column 3: Parent Insured Adjusted Odds Ratios, Odds of Child Being Currently Uninsured (N = 1512), Odds Ratio (95% Confidence Interval) Weighted
Child's age (yr) (N 1625)			
1–4 yr	1.00	1.00	1.00
5–9	0.97 (0.45, 2.13)	0.89 (0.39, 2.07)	0.60 (0.23, 1.56)
10–14	1.80 (0.85, 3.79)	1.49 (0.66, 3.37)	1.40 (0.59, 3.33)
15–18	2.53 (1.08, 5.93)	2.76 (1.15, 6.60)	2.87 (1.09, 7.58)
Child's race/ethnicity (N = 1625)			
White, not Hispanic	1.00	1.00	1.00
Hispanic, any race	2.35 (1.29, 4.29)	2.05 (1.04, 4.03)	2.21 (1.06, 4.64)
NonWhite, NonHispanic	1.35 (0.59, 3.08)	1.53 (0.66, 3.57)	0.71 (0.18, 2.76)
Parent's employment (N = 1612)			
Not currently employed	1.00	1.00	1.00
Employed or self-employed	3.02 (1.57, 5.79)	2.46 (1.33, 4.56)	1.57 (0.80, 3.10)
Household monthly income (N= 1603)			
Zero income	1.75 (0.52, 5.85)	2.07 (0.61, 7.05)	2.51 (0.53, 11.88)
1%–50% FPL	1.31 (0.61, 2.83)	1.31 (0.62, 2.78)	1.52 (0.60, 3.83)
51%–100% FPL	1.00	1.00	1.00
101%–133% FPL	2.97 (1.31, 6.74)	2.92 (1.24, 6.88)	2.35 (0.92, 6.02)
>133% FPL	5.21 (2.10, 12.91)	4.42 (1.68, 11.64)	2.72 (0.92, 8.06)
Parent's insurance type (N = 1544)			
Parent has public insurance	1.00	Not included	1.00
Parent has private insurance	5.13 (2.62, 10.02)	—	4.39 (2.00, 9.66)

The population number (N) represents unweighted cases for which all variables considered were known; odds ratios represent weighted data analyses. Values in bold indicate significant odds ratios.